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BIRD GUIDE

Birds East of the Rockies

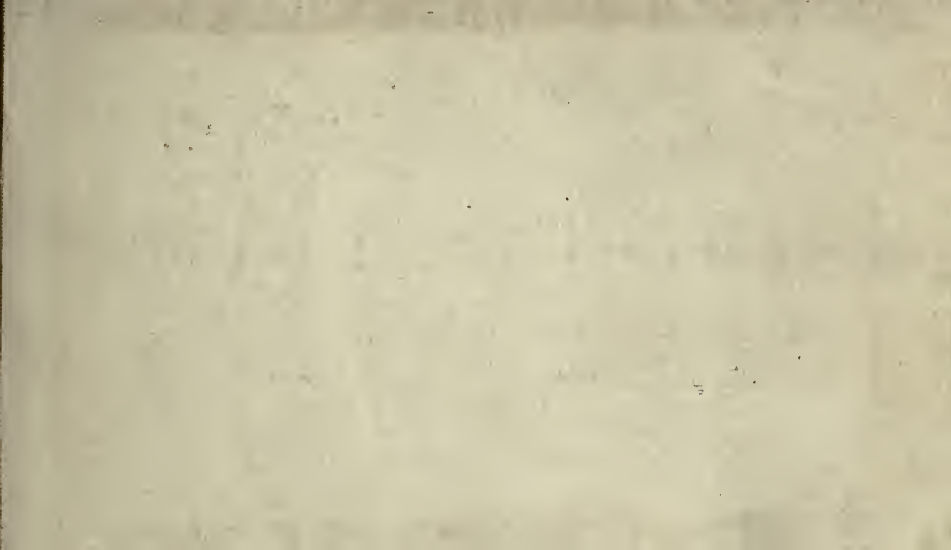
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Water Birds



RUFFED GROUSE.

BIRD GUIDE

Water Birds, Game Birds and Birds of Prey

EAST OF THE ROCKIES

BY
CHESTER A. REED

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North American Birds' Eggs, and, with Frank M. Chapman, of Color Key to North American Birds. Curator in Ornithology, Worcester Natural History Society.



1910

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PREFACE.

While strolling through a piece of woodland, or perhaps along the marsh or seashore, we see a bird, a strange bird,—one we never saw before. Instantly, our curiosity is aroused, and the question arises, "What is it?" There is the bird! How can we find out what kind it is? The Ornithologist of a few years ago had but one course open to him, that is to shoot the bird, take it home, then pore through pages of descriptions, until one was found to correspond with the specimen. Obviously, such methods cannot be pursued today, both humane and economical reasons prohibiting. We have but one alternative left us: We must make copious notes of all the peculiarities and markings of the bird that is before us. On our return home, we get down our bird books, and there are many excellent ones. After carefully looking through the whole library, we find that, although many of our books are well illustrated, none of them have the picture of what we seek, so we adopt the tactics of the "Old-time" Ornithologist, before mentioned, and pore over pages of text, until finally we know what our bird was. It is for just such emergencies as this—to identify a bird when you see it, and where you see it, that this little pocket "Bird Guide" is prepared. May it be the medium for saving many of today's seekers for "bird truths," from the many trials and tribulations willingly encountered, and hard and thorny roads gladly traveled by the author in his quest for knowledge of bird ways.

Worcester, Mass.

CHESTER A. REED.

1906.

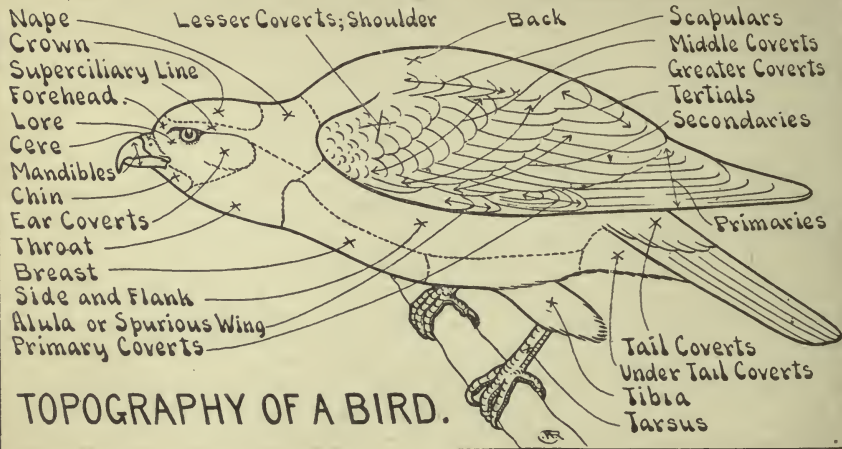
INTRODUCTION.

The study of the birds included in this book, is much more difficult than that of the small land birds. Many of the birds are large; some are very rare; all are usually shy and have keen eyesight, trained to see at a distance, in fact, many of them have to depend upon their vigilance, for their very existence. Therefore, you will find that the majority of these birds will have to be studied at long range. Sometimes, by exercising care and forethought, you may be able to approach within a few feet of the bird you seek, or induce him to come to you. It is this pitting your wits against the cunning of the birds that furnishes one-half of the interest in their study. Remember that a quick motion will always cause a bird to fly. If you seek a flock of plover on the shore, or a heron in the marsh, try to sneak up behind cover if possible; if not, walk very slowly, and with as little motion as possible, directly towards them, by so doing you often will get near, for a bird is a poor judge of distance, while a single step sideways, would cause him to fly. Shore birds can usually best be observed from a small "blind," near the water's edge, where they feed. Your powers of observation will be increased about ten-fold if you are equipped with a good pair of field glasses; they are practically indispensable to the serious student and add greatly to the pleasures of anyone. Any good glass, that has a wide field of vision and magnifies three or four diameters, is suitable; we can recommend the ones described in the back of this book.

WHAT TO MAKE NOTE OF.—What is the nature of the locality where

seen; marsh, shore, woods, etc.? If in trees does it sit upright or horizontal? If on the ground, does it run or walk, easily or with difficulty? If in the water, can it swim well, can it dive, does it swim under water, can it fly from the water easily, or does it have to patter over the surface before flying? What does it seem to be eating? Does it have any notes? Does it fly rapidly; with rapid wing beats or not; in a straight line or otherwise? Does it sail, or soar? In flocks or singly? These and hundreds of other questions that may suggest themselves, are of great interest and importance.

A PLEA TO SPORTSMEN.—Many of the birds shown in this book are Game Birds, that is, birds that the law allows you to shoot at certain seasons of the year. Some of these are still abundant and will be for numbers of years; others are very scarce and if they are further hunted, will become entirely exterminated in two or three years. Bow-whites are very scarce in New England; Prairie Hens are becoming scarce in parts of the west; the small Curlew is practically extinct, while the larger ones are rapidly going. In behalf of all bird lovers, we ask that you refrain from killing those species that you know are rare, and use moderation in the taking of all others. We also ask that you use any influence that may be yours, to further laws prohibiting all traffic in birds. The man who makes his living shooting birds, will make more, live longer and die happier, tilling the soil than by killing God's creatures. We do not, now, ask you to refrain from hunting entirely, but get your sport at your traps. It takes more skill to break a clay pigeon than to kill a quail.



Nape
Crown
Superciliary Line
Forehead.
Lore
Cere
Mandibles
Chin
Ear Coverts
Throat
Breast
Side and Flank
Alula or Spurious Wing
Primary Coverts

Lesser Coverts; Shoulder

Back

Scapulars
Middle Coverts
Greater Coverts
Tertials
Secondaries

Primaries

Tail Coverts
Under Tail Coverts
Tibia
Tarsus

TOPOGRAPHY OF A BIRD.

Characteristics of Form or Habit, That Will Determine to What Order or Family Birds Belong.

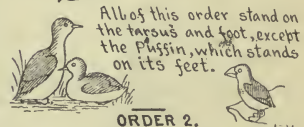
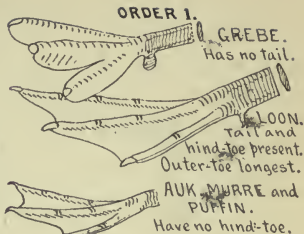
GREBES; Colymbidæ:—Form, duck-like; bill pointed. THINGS TO REMEMBER.

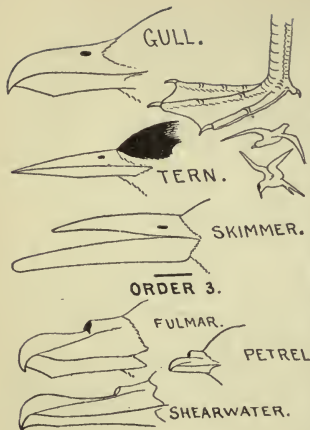
ORDER 1. DIVING BIRDS—Pygopodes.

ed and never flattened; no tail; legs at extreme end of body; each flattened toe with an individual web; wings small. Flies rapidly, but patters along the water before taking wing. Expert divers, using wings as well as feet, to propel them, under water.

LOONS. Family Gaviidæ:—Larger than Grebes; bill, long, heavy and pointed; tail very short; feet webbed like a duck's, but legs thin and deep; form and habits, grebe-like.

AUKS, MURREs, PUFFINS. Family Alcidae:—Bills very variable; tail short; usually takes flight when alarmed, instead of diving as do grebes and loons. With the exception of puffins, which stand on their feet, all birds of this order sit upon their whole leg and tail. They are awkward on land; some can hardly walk.





ORDER 2. LONG-WINGED SWIMMERS.—Longipennes.

SKUAS, JAEGERES. Family Stercorariidæ:—Marine birds of prey; bill strongly hooked, with long scaly shield, or cere, at the base; claws strong and curved, hawk-like; flight hawk-like; plumage often entirely sooty-black, and always so on the back.

GULLS, TERNS. Family Laridæ:—Gulls have hooked bills, usually yellowish, yellow eyes and pale, webbed feet. Head, underparts and square tail are white in adults, back, pearl-grey; exceptions are the four small black-headed gulls, which also have reddish legs. Gulls fly with the bill straight in front, and often rest on the water. Terns have forked tails, black caps, and their slender, pointed bills and small webbed feet are usually red. They fly with bill pointed down, and dive upon their prey.

ORDER 3. TUBE-NOSED SWIMMERS.—Tubinares.

FULMARS, SHEARWATERS, PETRELS. Family Procellariidæ:—Nostrils opening in a tube on top of the hooked bill. Plumage of fulmars, gull-like;

shearwaters entirely sooty black, or white below; petrels blackish, with white rumps,—very small birds. All seabirds.

ORDER 4. TOTIPALMATE SWIMMERS.—Steganopodes.

All four toes joined by webs.

TROPIC BIRDS. Family Phaethontidæ:—Bill and form tern-like; middle tail feathers very long.

GANNETS. Family Sulidæ:—Bill heavy and pointed; face and small throat pouch, bare.

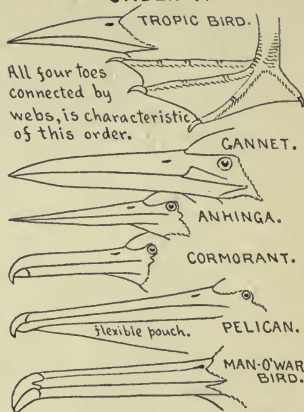
SNAKE-BIRDS. Family Anhingidæ:—Bill slender and pointed; neck and tail very long, the latter rounded; habits like those of the following.

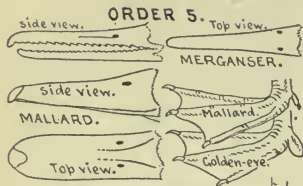
CORMORANTS. Family Phalacrocoracidæ:—Bill slender, but hooked at the tip; plumage glossy black and brown; eyes green. They use their wings, as well as feet, when pursuing fish under water.

PELICANS. Family Pelecanidæ:—Bill very long and with a large pouch suspended below.

MAN-O'-WAR BIRDS. Family Fregatidæ:—very long and strongly hooked; tail long and forked; wholly maritime, as are all but the preceding three.

ORDER 4.





ORDER 6.



ORDER 7.



ORDER 5. DUCKS, GEESE AND SWANS. *Anseres*.

Mergansers, with slender, toothed bills, with which to catch the fish they pursue under water.

Other ducks have rather broad bills, more or less resembling those of the domestic duck. Their flight is rapid and direct. River ducks have no web, or flap, on the hind toe; they get their food without going entirely under water, by tipping up. Sea ducks have a broad flap on the hind toe.

ORDER 6. FLAMINGOES. *Odontoglossæ*.

Family *Phoenicopteridæ*: — Large, long-necked, pink birds with a crooked box-like bill, long legs and webbed feet.

ORDER 7. HERONS, IBISES, ETC. *Herodiones*.

Long-legged, wading birds, with all four toes long, slender and without webs. Usually found about the muddy edges of ponds, lakes or creeks, and less often on the sea shore. Wings large and rounded.

SPOONBILL. Family *Plataleidæ*:—Bill long, thin and much broadened at the end; head bare.

IBISES. Family *Ibididæ*:—Bill long, slender and curved down. Ibises and Spoonbills fly with the neck fully extended.

STORKS. Family Ciconiidae:—Bill long, heavy and curved near the end; head and upper neck bare.

HERONS, BITTERNs, EGRETS. Family Ardeidae:—Bill long, straight and pointed; head usually crested, and back often with plumes. Herons fly with a fold in the neck, and the back of the head resting against the shoulders.

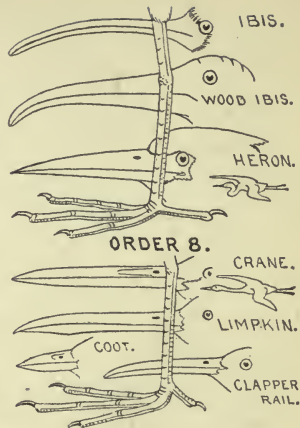
ORDER 8. MARSH BIRDS. Paludicolæ.

Birds of this order, vary greatly in size and appearance, but all agree in having the hind toe elevated, whereas that of the members of the last order, leaves the foot on a level with the front toes; neck extended in flight.

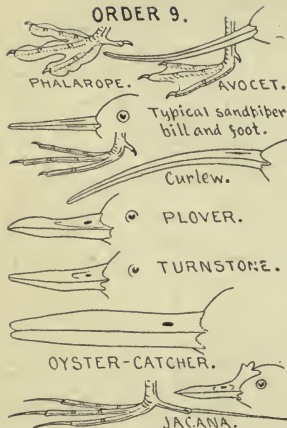
CRANES. Family Gruidæ:—Very large and heron-like, but with plumage close feathered; top of head bare; bill long, slender and obtusely pointed.

COURLANS. Family Aramidæ:—Size mid-way between the cranes and rails; bill long and slender.

RAILS, ETC. Family Rallidæ:—Bills are variable, but toes and legs long; wings short; flight slow and wavering; marsh skulkers, hiding in rushes. Gallinules have a frontal shield on the forehead, Coots have lobate-webbed feet; short, whitish bills.



ORDER 9.



ORDER 9. SHORE BIRDS. Limicolæ.

Comparatively small, long legged, slender-billed birds seen running along edges of ponds or beaches.

PHALAROPES. Phalaropodidæ.—Toes with lobed webs.

AVOCETS, STILTS. Recurvirostridæ:—Avocet, with slender recurved bill, and webbed feet; stilt, with straight bill, very long legs, toes not webbed.

SNIPES, SANDPIPERS, ETC. Family Scolopacidæ:—Bills very variable but slender, and all, except the Woodcock, with long pointed wings; flight usually swift and erratic.

PLOVERS. Family Charadriidæ:—Bill short and stout; three toes.

TURNSTONES. Family Aphrizzidæ:—Bill short, stout and slightly up-turned; four toes.

OYSTER-CATCHERS. Family Hæmatopodidæ:—Bill long, heavy and compressed; legs and toes stout; three toes slightly webbed at base.

JACANAS. Family Jacanidæ:—Bill with leaf-like shield at the base; legs and toes extremely long and slender; sharp spur on wing.

ORDER 10. FOWLS *Gallinæ*.

Ground birds of robust form; bill hen-like; wings short and rounded; feet large and strong.

PARTRIDGES, GROUSE. Family *Tetraonidæ*:—Legs bare in the partridges, feathered in grouse.

TURKEYS, PHEASANTS. Family *Phasianidæ*:—Legs often spurred, or head with wattles, etc.

GUANS. Family *Cracidæ*:—Represented by the Chachalaca of Texas.

ORDER 11. PIGEONS AND DOVES. *Columbæ*.

Family *Columbidæ*:—Bill slender, hard at the tip, and with the nostrils opening in a fleshy membrane at the base. Plumage soft grays and browns.

ORDER 12. BIRDS OF PREY. *Raptores*.

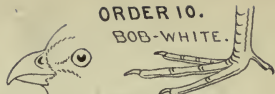
VULTURES. *Cathartidæ*:—Head bare; feet hen-like.

HAWKS, EAGLES. *Falconidæ*:—Bill and claws strongly hooked; nostrils in a cere at base of bill.

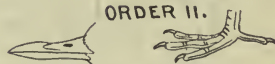
BARN OWLS. *Aluconidae*:—Black eyes in triangular facial disc; middle toe-nail serrated.

HORNED OWLS, ETC. *Bubonidæ*:—Facial disc round; some species with ears, others without.

ORDER 10. BOB-WHITE.



ORDER 11.



ORDER 12.

VULTURE.



BARN - BARRED - HORNED OWL

BIRD GUIDE

PART I

Water Birds, Game Birds and Birds of Prey

Part 2 contains Land and Song Birds, the two books giving every bird east of the Rocky Mountains

DIVING BIRDS—Order Pygopodes

GREBES—Family Colymbidæ

WESTERN GREBE

1. *Æchmophorus occidentalis*. 25 to 29 inches.

All grebes have lobate-webbed feet, that is each toe has its individual web, being joined to its fellow only for a short distance at the base.

This, the largest of our grebes, is frequently known as the "Swan Grebe" because of its extremely long, thin neck. In summer the back of the neck is black, but in winter it is gray like the back.

Notes.—Loud, quavering and cackling.

Nest.—A floating mass of decayed rushes, sometimes attached to upright stalks. The 2 to 5 eggs are pale, bluish white, usually stained (2.40 x 1.55). They breed in colonies.

Range.—Western North America, from the Dakotas and Manitoba to the Pacific, and north to southern Alaska. Winters in the Pacific coast states and Mexico.





HOLBÆLL GREBE

2. *Colymbus holbælli*. 19 inches.

This is next to the Western Grebe in size, both being much larger than any of our others. In summer, they are very handsomely marked with a reddish brown neck, silvery white cheeks and throat, and black crown and crest, but in winter they take on the usual grebe dress of grayish above and glossy white below. Because of their silky appearance and firm texture, grebe breasts of all kinds have been extensively used in the past to adorn hats of women, who were either heedless or ignorant of the wholesale slaughter that was carried on that they might obtain them.

Nest.—Of decayed rushes like that of the last. Not in as large colonies; more often single pairs will be found nesting with other varieties. Their eggs average smaller than those of the last species (2.35 x 1.25).

Range.—North America, breeding most abundantly in the interior of Canada, and to some extent in the Dakotas. Winters in the U. S., chiefly on the coasts.

HORNED GREBE

3. *Colymbus auritus*. 14 inches.

As is usual with grebes, summer brings a remarkable change in the dress of these birds. The black, puffy head is adorned with a pair of buffy white ear tufts and the foreneck is a rich chestnut color. In winter, they are plain gray and white but the secondaries are always largely white, as they are in the two preceding and the following species. The grebe diet consists almost wholly of small fish, which they are very expert at pursuing and catching under water. One that I kept in captivity in a large tank, for a few weeks, would never miss catching the shiners, upon which he was fed, at the first lightning-like dart of his slender neck. They also eat quantities of shell fish, and I doubt if they will refuse any kind of flesh, for they always have a keen appetite.

Nest.—A slovenly built pile of vegetation floating in the "sloughs" of western prairies. The 3 to 7 eggs are usually stained brownish yellow (1.70 x 1.15).

Range.—Breeds from Northern Illinois and So. Dakota northward; winters from northern U. S. to the Gulf of Mexico.





AMERICAN EARED GREBE

4. *Colymbus nigricollis californicus*. 13 inches.

This is a western species rarely found east of the Mississippi. In summer, it differs from the last in having the entire neck black; in winter it can always be distinguished from the Horned Grebe by its slightly upcurved bill, while the upper mandible of the last is convex. In powers of swimming and diving, grebes are not surpassed by any of our water birds. They dive at the flash of a gun and swim long distances before coming to the surface; on this account they are often called "devil divers." They fly swiftly when once a-wing, but their concave wings are so small that they have to patter over the water with their feet in order to rise.

Nest.—They nest in colonies, often in the same sloughs with Horned and Western Grebes, laying their eggs early in June. The 4 to 7 eggs are dull white, usually stained brownish, and cannot be separated from those of the last.

Range.—Western N. A., breeding from Texas to Manitoba and British Columbia; winters in western U. S. and Mexico.

LEAST OR ST. DOMINGO GREBE

5. *Colymbus dominicus brachypterus*. 10 inches.

This is much smaller than any others of our grebes; in breeding plumage it most nearly resembles the following species, but the bill is black and sharply pointed. It has a black patch on the throat, and the crown and back of the head are glossy blue black; in winter, the throat and sides of the head are white.

Nest.—Not different from those of the other grebes. Only comparatively few of them breed in the U. S. but they are common in Mexico and Central America. Their eggs, when first laid, are a pale, chalky, greenish white, but they soon become discolored and stained so that they are a deep brownish, more so than any of the others; from 3 to 6 eggs is a full complement (1.40 x .95).

Range.—Found in the United States, only in the Lower Rio Grande Valley in Southern Texas, and southwards to northern South America.





PIED-BILLED GREBE

6. *Podilymbus podiceps*. 13.5 inches.

In any plumage this species cannot be mistaken for others, because of its stout compressed bill and brown iris; all the others have red eyes. In summer the bill is whitish with a black band encircling it; the throat is black; the eye encircled by a whitish ring; the breast and sides are brownish-gray. In winter they are brownish-black above and dull white below, with the breast and sides washed with brown. Young birds have more or less distinct whitish stripes on the head.

Notes.—A loud, ringing “kow-kow-kow-kow (repeated many times and ending in) kow-uh, kow-uh.”

Nest.—Of decayed rushes floating in reed-grown ponds or edges of lakes. The pile is slightly hollowed and, in this, the 5 to 8 eggs are laid; the bottom of the nest is always wet and the eggs are often partly in the water; they are usually covered with a wet mass when the bird is away. Brownish-white (1.70 x 1.15).

Range.—Whole of N. A., breeding locally and usually in pairs or small colonies.

LOONS—Family Gaviidæ
LOON; GREAT NORTHERN DIVER

7. *Gavia immer*. 31 to 35 inches.

In form, loons resemble large grebes, but their feet are full webbed like those of a duck; they have short, stiff tails and long, heavy, pointed bills. They have no tufts or ruffs in breeding season, but their plumage changes greatly. The common loon is very beautifully and strikingly marked with black and white above, and white below; the head is black, with a crescent across the throat and a ring around the neck. In winter, they are plain gray above and white below.

Loons are fully as expert in diving and swimming as are the grebes. They are usually found in larger, more open bodies of water.

Notes.—A loud, quavering, drawn-out “wah-hoo-o-o.”

Nest.—Sometimes built of sticks, and sometimes simply a hollow in the sand or bank under overhanging bushes, usually on an island. The 2 eggs are brownish with a few black specks (3.50 x 2.25).

Range.—N. A., breeding from northern U. S. northwards; winters from northern U. S. southwards.





BLACK-THROATED LOON

9. *Gavia arctica*. 28 inches.

This loon lives in the Arctic regions and only rarely is found, in winter, in Northern United States. In summer, it can readily be distinguished from the common loon by the gray crown and hind-neck, as well as by different arrangement of the black and white markings. In winter, they are quite similar to the last species but can be recognized by their smaller size, and can be distinguished from the winter plumaged Red-throated Loon by the absence of any white markings on the back. Like the grebes, loons have to run over the surface of the water in order to take flight, and they are practically helpless when on land. Their flight is very rapid, in a straight line, and their neck is carried at full length in front. This species has red eyes, as do all the other loons.

Nest.—The same as the last species, but the two eggs have more of an olive tint and are smaller (3.10 x 2.00).

Range.—Arctic America, wintering in Canada and occasionally in Northern United States.

RED-THROATED LOON

11. *Gavia stellata*. 25 inches.

Besides being smaller than the common loon, this species has a more slender bill, which has a slightly up-turned appearance owing to the straight top to the upper mandible; in summer, its back and head are gray, with no white spots, although the back of the head has a few white streaks; there is a large patch of chestnut on the fore-neck; the under parts are white. In winter, it is gray above and white below, but the back is sprinkled with small white spots; at this season it can easily be distinguished from Holbøell Grebe by the absence of any white patch in the wings as well as by the differently shaped feet.

Nest.—A depression in the sand or ground, not more than a foot or two from the water's edge, so they can slide from their two eggs into their natural element. The eggs, which are laid in June, are olive-brown, specked with black (2.90 x 1.75).

Range.—Breeds from New Brunswick and Manitoba north to the Arctic Ocean; winters throughout the United States.



AUKS, MURRES and PUFFINS—Family Alcidae
PUFFIN; SEA PARROT

13. *Fratercula arctica*. 13 inches.

Puffins are grotesque birds, with short legs, stout bodies and very large, thin bills, that of the common Puffin being 2 in. in length and about the same in height; the bill is highly colored with red and yellow, and the feet are red; eyes, white. It will be noticed that the blackish band across the throat does not touch the chin, this distinguishing it from the Horned Puffin of the Pacific coast. Adults in winter shed the greater portion of their bill, lose the little horns that project over the eye, and the face is blackish; they then resemble young birds. They live on rocky shores, the more precipitous the better. They stand erect upon their feet and walk with ease.

Notes.—A low croak.

Nest.—They breed in large colonies on rocky cliffs, laying their single white eggs (2.50 x 1.75) in crevices.

Range.—Breeds from Matinicus Rock, Me., northward; winters south casually to Cape Cod. Large-billed Puffin (*F. a. naumanni*) is found in the Arctic Ocean.



BLACK GUILLEMOT; SEA PIGEON

27. *Cepphus grylle*. 13 inches.

These birds are very abundant about the rocky islands from Maine northward. They may be seen sitting in rows on the edges of the rocks, or pattering along the water as they rise in flight, from its surface, at a boat's approach. In summer the plumage is entirely black, except the large white patches on the wings; legs red; eyes brown. This species has the bases of the greater coverts black, while they are white in Mandt Guillemot (*C. mandtii*—No. 28), which is found from Labrador northward. In winter, these birds are mottled gray and white above, and white below, but the patches still show.

Notes.—A shrill, piercing, squealing whistle.

Nest.—Guillemots lay two eggs upon the bare rock or gravel in crevices or under piles of boulders where they are difficult to get at. They are grayish or greenish-white, beautifully and heavily blotched with black and brownish (2.40 x 1.60).

Range.—Breeds on coasts of North Atlantic from Maine northward; winters south to Long Island.



MURRE

30. *Uria troille*. 16 inches.

In summer the throat is brownish black, but in winter the throat and sides of head are white; feet blackish bill, long and stout, 1.7 in. long, while that of Brunnich Murre (*Uria lomvia*—No. 31), is shorter (1.25 in.) and more swollen. The ranges and habits of the two species are the same. Murres are very gregarious, nesting in large colonies on northern cliffs. In summer every ledge available at their nesting resort is lined with these birds, sitting upright on their single eggs.

Notes.—A hoarse imitation of their name “murre.”

Nest.—Their single eggs are laid upon the bare ledges of cliffs. They are pear-shaped to prevent their rolling off when the bird leaves; greenish, gray or white in color, handsomely blotched or lined with blackish (3.40 x 2.00). Their eggs present a greater diversity of coloration and marking than those of any other bird.

Range.—Breeds from the Magdalen Is. northward; winters south to Long Island.

RAZOR-BILLED AUK

32. *Alca torda*. 16.5 inches.

Similar in size and form to the murre, but with a short, deep, thin black bill, crossed by a white line. In summer, with a white line from the eye to top of bill, and with a brownish black throat; in winter, without the white line and with the throat and sides of head white. They nest and live in large colonies, usually in company with Murres. Their food, like that of the murres, puffins and guillemots is of fish and shell fish, or marine worms. They get these from the rockweed along the shores or by diving; they are good swimmers, using both their feet and wings to propel them through the water, the same as do the grebes and loons.

Notes.—A hoarse grunt or groan (Chapman).

Nest.—Their single eggs are laid on ledges of cliffs; they are not nearly as pointed at the smaller end, as murre eggs, and are always grayish white in color, marked with blackish blotches (3.1 x 2.00).

Range.—Breeds from the Magdalen Islands northward; winters south to Long Island.





GREAT AUK

33. *Plautus impennis*. 29 inches.

This largest of the auks lived, as far as we have authentic record, until 1844, when it became extinct, largely through the agency of man. Although nearly twice as long a bird as the Razor-billed Auk, their wings were shorter than those of that bird, being only a trifle longer than those of the little Dovekie; they were flightless, but the wings were used to good advantage in swimming. Being in the direct line of travel between the old world and the new, sailors, on passing vessels, killed countless numbers of them for food, and in some cases merely for the love of slaughter. They lived on coasts and islands of the Atlantic from Mass., northwards. There are about seventy mounted birds preserved, of which five or six, as well as some skeletons, are in this country.

Their eggs resemble those of the Razor-bill but, of course, are much larger (5.00 x 3.00). About 70 of these are in existence, six being in this country (Washington, Phila., and four recently purchased by John E. Thayer, of Lancaster, Mass.).

DOVEKIE; SEA DOVE

34. *Alle alle*. 8 inches.

These little auks, called "ice birds" by the fishermen, are very abundant in the far north. In summer, they have a blackish brown throat and breast, but they are never seen in the United States or southern parts of the British possessions in that plumage. In winter, their throats and sides of the head are white, as well as the rest of their upper parts. At all seasons the edges of the scapulars and tips of the secondaries are white, as are usually spots on each eyelid. Even in winter, they are only casually found on our coast, for they keep well out at sea. Occasionally they are blown inland by storms and found with their feet frozen fast in the ice of some of our ponds or lakes.

Nest.—They lay single pale greenish blue eggs, placing them in crevices of sea cliffs; size 1.80 x 1.25.

Range.—Breeds on islands in the Arctic Ocean and on the coasts of Northern Greenland; winters south to Long Island and casually farther.





LONG-WINGED SWIMMERS—Order Longipennes
SKUAS AND JÆGERS—*Family Stercorariidæ*
SKUA

35. *Megalestris skua*. 22 inches.

These large birds are the most powerful and audacious pirates among the sea fowl of northern waters. Their whole form is indicative of strength; form robust, feet strong, and bill large, powerful and hooked. Their plumage is of a nearly uniform blackish-brown, with white shafts to the wing feathers and a white patch at the base of the primaries.

Nest.—They do not nest in large colonies, only a single or a few pairs breeding in the same locality. Their nests are hollows in the ground, a short distance back from the rocky shores. The two eggs that they lay are olive brown, spotted with blackish (2.75 x 1.50).

Range.—North Atlantic coasts, chiefly on the Old World side, breeding from the Shetland Islands and possibly Greenland, northwards. They are only rarely found on our coasts even in winter, but have been taken as far south as New York.

POMARINE JAEGER

36. *Stercorarius pomarinus*. 21 inches.

Jaegers are more slender in form than the Skuas, but like them are piratical in their habits, preying chiefly upon terns. Off Chatham, Mass., I have often watched them in pursuit of the graceful terns, but, excellent fliers as the latter birds are, they were always overtaken and forced to drop the fish that they carried, and the jaeger would rarely miss catching it as it fell. This species has two color phases independent of sex or age. In the light plumage the top of the head is black; rest of the upper parts and the under tail coverts brownish black; underparts and bases of primaries, white. Dark phase,—Entirely blackish brown except the white shafts to wing feathers and bases of primaries. In any plumage they can be distinguished from the other species by the rounded, lengthened central tail feathers.

Nest.—A hollow in the ground in marshy places. The two eggs are olive brown spotted with black.

Range.—Northern hemisphere, breeding north of the Arctic Circle; winter from Mass. southward.





PARASITIC JAEGER

37. *Stercorarius parasiticus*. 17 in.

Two phases of color, both similar to those of the last, but the central pair of tail feathers are pointed and project about 4 in. beyond the others; bill 1.4 in. long, with the nostril nearest the end. All jaegers have grayish blue legs with black feet, and brown eyes. They are called "Jiddy hawks" by fishermen, who often feed them fish liver. Their flight is like that of a hawk. The nesting habits and range are the same as the next.

LONG-TAILED JAEGER

38. *Stercorarius longicaudus*. 21 in.

Like the last species, but with the pointed central tail feathers projecting 8 or 10 in. and with a shorter bill (1.15 in.) and the nostril about midway of its length. It is less often found in the dark phase.

Notes.—Shrill wailing whistles.

Nest.—Nest and eggs like those of the Pomarine Jaeger.

Range.—Arctic regions, wintering south to Florida.

GULLS AND TERNS—Family Laridæ

IVORY GULL

39. *Pagophila alba*. 17 in.

Entirely pure white with the shafts of the primaries yellowish; bill dark at base and yellow at tip; eyes brown, surrounded by a narrow red ring; feet black. Young birds are spotted with brown on the head, tips of wing and tail. This beautiful "Snow Gull," as it is called by whalers, is abundant at its breeding ground in the Arctic regions, but is rarely seen as far south as the United States. It breeds the farthest north of any of the gulls except Ross Gull.

Nest.—Of grasses and seaweed, usually on ledges of cliffs, but occasionally on the ground farther inland. The three eggs, laid in June, are grayish-buff, marked with brown and black (2.30 x 1.70).

Range.—Breeds only north of the Arctic Circle, and winters south to New Brunswick and British Columbia; casually to Long Island and the Great Lakes.





KITTIWAKE

40. *Rissa tridactyla*. 16 in.

In summer, with plumage white, except the gray back and wings, and solid black tips to the primaries; in winter, the sides and back of the head are washed with the color of the back; young birds are like winter adults but have a dusky spot back of the eye; feet blackish, bill yellow in adults and black in young birds. Kittiwakes are very abundant in their northern breeding ground, and are common off the New England coast in winter. They usually keep well out at sea, often hovering around fishing boats to pick up refuse that is thrown overboard. They can easily be identified by their small size, the distinct black tip to the wings and their black feet.

Notes.—"Keet-a-wake, keet-a-wake."

Nest.—A pile of small sticks, grass and weeds, placed on ledges of sea cliffs. The 3 or 4 eggs are olive gray, with black markings (2.20 x 1.70).

Range.—Breeds from the Gulf of St. Lawrence north to the Arctic Circle; winters south to Long Island and casually farther.

GLAUCUS GULL

42. *Larus hyperboreus*. 28 in.

Plumage white with a pearl gray mantle; no black in the plumage, the primaries being white or grayish; bill and eye yellow, the former with a red spot at the end of the lower mandible; feet flesh color. In winter, the head is slightly streaked with brownish. Young birds are mottled grayish brown and white, of varying shades, but always lighter than the young of the Herring Gull. Some specimens are very beautiful, being entirely white, with a few spots of brownish on the back, resembling the markings of a light-colored Snowy Owl. This species is one of the largest and most powerful of the gull family, only surpassed by the Great Black-backed Gull.

Nest.—Usually a bulky structure of grasses, seaweed and moss placed on the ground; the two or three eggs are brownish gray with brown and black spots (3. x 2.20).

Range.—Breeds from Labrador and Hudson Bay northward; winters south to New England, the Great Lakes and Calif.





ICELAND GULL

43. *Larus leucopterus*. 25 in.

Plumage exactly like that of the Glaucus Gull but the birds are smaller and are found farther north.

Range.—Breeds in Greenland and winters south to Northern New England and the Great Lakes.

KUMLIEN GULL

45. *Larus kumlieni*. 27 in.

Plumage very similar to that of the Iceland and Glaucus Gulls, but with the primaries conspicuously gray, with white tips. As usual with the gull family, this species feeds largely, during the nesting season upon eggs and young of other sea birds. They seem to have a special liking for Cormorant eggs, and these ungainly creatures have to sit on their nests very closely to prevent being robbed.

Range.—Breeds about the mouth of Hudson Bay; winters south to Long Island.

GREAT BLACK-BACKED GULL

47. *Larus marinus*. 29 in.

Largest and most powerful of our gulls. Adults in summer have the head, tail and underparts white, back slaty black, eyes and bill yellow, with a red spot near the tip of the lower mandible; feet flesh color; primaries tipped with white. In winter, the head is streaked with dusky. Young birds are mottled with dusky brown above, and streaked with the same below. These birds are very rapacious, and besides feeding upon refuse, fish and shellfish, devour, during the summer season, a great many eggs and young of other sea birds; this habit is common to nearly all the larger gulls.

Notes.—A laughing “ha-ha” and a harsh “keouw.”

Nest.—Either hollows on the ground or masses of weeds and drift, hollowed out to receive the three grayish brown eggs, spotted with blackish and lilac. (3. x 2.15).

Range.—These gulls breed from Newfoundland northward, being most abundant on the Labrador coast. In winter they are found as far south as the Carolinas, usually in company with Herrings Gulls.





HERRING GULL

51. *Larus argentatus*. 24 in.

Adults in summer, white, with gray mantle, and black primaries tipped with white. In winter, the head and neck are streaked below with grayish brown. Bills of adults, yellow with red spot on lower mandible; eye yellow; feet flesh color; bill of young, flesh color with a blackish tip. These are the most abundant of the larger gulls and the best known because of their southerly distribution. Several of the smaller Maine islands have colonies of thousands of birds each, and in winter great numbers of them are seen in all the harbors along our seacoast. Young gulls are born covered with down, and can run swiftly and swim well.

Notes.—"Cack-cack-cack" and very noisy squawkings when disturbed at their breeding grounds.

Nest.—A hollow in the ground, or a heap of weeds and trash. The three eggs are olive-gray, spotted with black (2.8 x 1.7).

Range.—Breeds from Maine, the Great Lakes and Dakotas northward; winters south to the Gulf of Mexico.

RING-BILLED GULL

54. *Larus delawarensis*. 18 in.

Adults in summer.—White with pearl gray mantle; ends of outer primaries black with white tips; eye yellow; feet and bill greenish-yellow, the latter crossed by a black band near the tip. In winter, the head and neck are streaked with grayish. Young birds are mottled brownish-gray above, and the tail has a band of blackish near the end.

The adults can be distinguished from the Kittiwakes, which most closely resemble them, by the yellowish feet and white tips to the black primaries.

Nest.—In hollows in the ground, usually in grass. The two or three eggs are gray or brownish gray, strongly marked with black (2.80 x 1.75). They breed in large colonies, often in company with other gulls and terns.

Range.—Whole or North America, breeding from New Foundland, Dakota and British Columbia northwards, most abundantly in the interior; winters from Northern United States southward.





LAUGHING GULL

58. *Larus atricilla*. 16 in.

Largest of the black-headed gulls. Bill and feet carmine-red; primaries wholly black or only with slight white tips; eye brown; in breeding season, with the underparts tinged with pinkish. In winter, without the black hood, the head being tinged with grayish, and the bill and feet dusky. Young birds are like winter adults with the back more or less mixed with brownish and the tail crossed by a black band. The most southerly distributed of our eastern gulls, its northern breeding place being on the southern shore of Mass.

Notes.—Strange cackling laughter; hence their name.

Nest.—Heaps of rubbish and weeds on the ground in wet marshes. The 3 to 5 eggs are gray or olive-gray with black spots (2.25 x 1.60).

Range.—Breeds from the Gulf of Mexico north to Mass., and in the interior to Ohio, but most abundantly on the South Atlantic coast. Winters from the Carolinas to Northern South America.

FRANKLIN GULL

59. *Larus franklini*. 15 in.

Adult in summer.—Hood dark; mantle lighter than the last species; primaries gray with black ends broadly tipped with white; underparts rosy; bill and feet red, the former dark toward the tip, and more slender than that of the Laughing Gull. In winter, the plumage changes the same as that of the last but the color of the primaries and the shape of the bill will always indentify this species. These gulls are strictly birds of the interior, nesting on low marshy islands in ponds or sloughs, often in company with grebes, upon whose eggs they subsist to a great extent.

Notes.—Similar to those of the last species.

Nest.—A mass of weeds, etc., on the ground in marshes, often partly floating in the water. The eggs are similar to those of the Laughing Gull but the markings are usually in the form of zigzag lines as well as spots (2.25 x 1.60).

Range.—Interior of North America, breeding from Iowa and the Dakotas north to Middle Canada; winters from the Gulf States southward.



BONAPARTE GULL

60. *Larus philadelphia*. 14 in.

Adult in summer.—Hood lighter gray and not as extensive as in the last two species; bill slender and black; feet coral red; primaries white with black tips and outer web of first one; mantle paler than either of the last. In winter, the head is white with gray spots back of the eyes. Young birds have the back mixed with brownish and the tail with a band of black near the tip, but the bill and primaries always separate this species in any plumage from the other black-headed gulls. These little gulls are one of the most beautiful and graceful of the family, but they are rarely found in the U. S. with the dark hood.

Nest.—Of weeds and grass on the ground, but not in the watery situations chosen by the preceding species. The three eggs are olive-brown, marked with blackish (1.90 x 1.30).

Range.—Breeds in the interior from Hudson Bay and Northern Manitoba northward. Winters from Maine, the Great Lakes and British Columbia southward.



ROSS GULL; WEDGE-TAILED GULL

61. *Rhodostethia rosea*. 13 in.

Bill short and slender; tail wedge-shaped. Adults in summer.—With no hood, but with narrow black collar; mantle light pearl; primaries wholly white with the exception of a blackish outer web to the first one; feet coral red, and underparts tinged with rosy in the nesting season. In winter, with no black collar nor pink underparts, and with blackish spot before the eye. Young mixed with blackish above, and with a black band across the tip of the tail; feet black; easily distinguished, when in the hand, by the very small bill, and the wedge shaped tail. This gull has the most northern distribution of any known bird, except, possibly, the Knot. Its breeding grounds were first reported by Nansen in 1896, in Franz Josef Land. It is one of the rarest birds in collections.

Range.—Polar regions, south in winter to Point Barrow, Alaska, and Disco Bay, Greenland.



SABINE GULL

62. *Xema sabini*. 14 in.



Tail slightly forked; bill small and black, tipped with yellow. Adults in summer.—Head with a slaty-gray hood, edged with a black ring around the neck; outer primaries black, with white tips, and edge of shoulder black; feet blackish; eye ring orange red. In winter, without the hood or collar, but the head is tinged with gray on the ears and nape. Young birds most nearly resemble those of the Bonaparte Gull, but the primaries are blackish, and the tail slightly forked. This species is very abundant within the Arctic Circle, but is not as boreal as the last.

Nest.—In depressions in the ground, usually lined with grass; the three eggs are olive-brown, marked with deeper brown and black (1.75 x 1.25).

Range.—Breeds from northern Alaska and the islands about the mouth of Hudson Bay northwards; winters south on the Atlantic coast to Maine and rarely New York.

GULL-BILLED TERN

63. *Gelochelidon nilotica*. 14 in.

Differs from all other terns in the shape of its black bill, which is stout, but with the upper mandible not hooked nor curved, as in the gulls. Tail forked about 1.5 in. Adults have the crown black in summer, while in winter the head is white, with the nape and spot in front of eye, black mixed with white. Young birds are similar to winter adults but have the back feathers margined with brownish, and the neck streaked with gray. This species is found only on our South Atlantic and Gulf coasts, and is not abundant anywhere.

Notes.—A high, thin, somewhat reedy “tee-tee-tee,” sometimes suggesting a weak voiced katydid (Chapman).

Nest.—A slight, unlined depression in the short marsh grass or on the beaches. The three eggs are olive gray, spotted with black and brown (1.80 x 1.30).

Range.—Breeds in Texas and along the Gulf and South Atlantic coasts to Virginia; later, may wander north to New England; winters south of the U. S.





CASPIAN TERN

64. *Sterna caspia*. 21 in.

Largest of our terns. Bill heavy and bright red; head crested; tail forked about 1.5 in.; eyes brown. Adults in summer have the crown and occipital crest glossy black. Winter adults and young birds have the crown mixed with white, and the latter are also blotched with blackish on wings and tail.

Nest.—The 2 or 3 buffy, spotted eggs are laid in hollows in the sand. Size 2.60 x 1.75.

Range.—Breeds locally along the South Atlantic coast and in the interior to Great Slave Lake.

ROYAL TERN

65. *Sterna maxima*. 19 in.

Similar to the last, but smaller; bill more slender; tail forked 3.5 in.

Nest.—A hollow in the sand. The 2 or 3 eggs are creamy buff, with distinct blackish-brown spots (2.60 x 1.70).

Range.—Breeds in the Gulf States and north to Virginia and Calif.; winters south of the U. S.

CABOT TERN

67. *Sterna sandvicensis acuflavida*. 16 in.

Head crested; bill and feet blackish, the former with a yellow tip. Adults have the crown glossy black. Young birds, and winter adults, have the crown mixed with white, and the former have blackish markings on the wings; tail forked 2.75 in. Like the majority of terns, these breed in immense colonies.

Nest.—Their two or three eggs are deposited in slight hollows in the sand. They are cream colored, boldly spotted with blackish brown (2.10 x 1.40).

Range.—Breeds on the Florida Keys, Bahamas and the West Indies; later may stray north as far as New England; winters south of the United States.

TRUDEAU TERN

69. *Sterna trudeaui*. 14 in.

This is a rare South American species, described by Audubon as having occurred in New Jersey and New York. It has the form of the Forster Tern, a bright yellow bill and no black crown, but a black line through the eye to the ears.



FORSTER TERN

69. *Sterna forsteri*. 15 in.



No crest on this or any of the following terns. Tail forked 4 in.; below pure white. In summer, with bill and feet orange red; crown black. In winter, the crown is white, but there is a blackish patch about the eyes, and the bill and feet are dark. These beautiful birds are often known as "Sea Swallows," because of their similarity in form and flight to those well known land birds. They are the embodiment of grace as they dart about high in the air, bill pointed downward, alert and ready to dart down upon any small fish or eel that may attract their fancy. They usually get their food by plunging.

Notes.—A sharp, twanging "cack."

Nest.—A hollow in the ground, in which the 3 eggs are laid in June. Eggs whitish, greenish or brownish, variously marked with brown, black and lavender. (1.80 x 1.30).

Range.—Breeds in the interior, north to Manitoba, and on the coasts to Virginia and Calif. Winters from the Gulf States southward.

COMMON TERN

70. *Sterna hirundo*. 15 in.

Mantle darker than that of any of the similar terns; washed with grayish below; bill and feet bright red, the former shading to black on the tip; tail less deeply forked (3.1 in.); edge of outer primaries and outer tail feathers, blackish. Changes in winter correspond to those of the last. Young birds have the feathers on the back margined with brownish.

Note.—An energetic “tee-arr, tee-arr.”

Nest.—The three eggs are laid in a slight hollow on the sandy beach.

Range.—Breeds locally from the Gulf States to Greenland and Hudson Bay; winters south of the U. S.

ARCTIC TERN

71. *Sterna paradisæa*. 15.5 in.

Similar to the Common Tern, but tail longer (forked 4.5 in.) and bill wholly red. In winter, bill and feet dark, as are those of the others.

Range.—Breeds from Mass. northwards; winters in the south.





ROSEATE TERN

72. *Sterna dougalli*. 15.5 in.

This species is the most gracefully formed of the terns. The tail is 7.5 in. long, forked to a depth of 5.25 in. In summer, the bill is blackish, changing to red only at the base. The underparts are a beautiful rosy tint in the breeding season; tail entirely white; feet red. In winter the usual changes occur, and young birds have dusky edges to the feathers of the back and wings. Terns are now becoming more abundant on our coast, their slaughter and persecution for millinery purposes fortunately having been stopped in time to prevent their extinction.

They feed chiefly upon small fish and marine insects, and often gather about fishing boats, waiting for an opportunity to dive after any bit that may be thrown overboard.

Notes.—A harsh “cack” and “tee-arr,” like that of the common Tern.

Nest.—Eggs like those of the similar terns.

Range.—Breeds on the Atlantic coast north to Mass.; winters south of the U. S.

LEAST TERN

74. *Sterna antillarum*. 9 in.

Smallest of our terns. Adult in summer.—Crown, nape, and line through the eye, black; forehead and line above the eye, white; bill and feet yellow, the former black at the tip. In winter, the crown is white, the blackish being restricted to the nape and about the eyes.

These pretty little sea swallows were abundant both on the coast and in the interior but are yearly becoming more scarce especially on the Atlantic coast. They are very aggressive when anyone approaches their nesting grounds and will continually dash down at you as they utter their sharp cries of disapproval.

Notes.—A sharp, metallic clattering “cheep, cheep.”

Nest.—Two or three eggs are laid upon the bare sand. They are buffy-gray, sharply specked with blackish (1.25 x .95).

Range.—Breeds north to Mass., the Great Lakes and Calif.; winters south of the United States.





SOOTY TERN

75. *Sterna fuscata*. 17 in.

Adult in summer.—Above sooty-black, except the white outer tail feathers. Crown, line through the eye, bill and feet, black; forehead and underparts white; eye red. Young birds are smoky slate color all over, with the tail feathers, and some on the back and breast, tipped with whitish. This is the "egg bird" of tropical countries, thousands of their eggs being taken for food.

Note.—A nasal "ker-wacky-wak" (Chapman).

Nest.—A single egg deposited in a hollow in the sand; it is creamy-white, spotted with blackish-brown.

Range.—Tropical countries; breeds north to the Florida Keys and islands in the Gulf of Mexico; sometimes wanders north to New England.

BRIDLED TERN

76. *Sterna anatheta*. 15 in.

Similar to the last, but the back and wings much lighter, and the white of the forehead extends over the eyes; nape whitish.

Range.—Breeds north to the Bahamas.

BLACK TERN

77. *Hydrochelidon nigra surinamensis*. 10 in.

Adults in summer with the head, neck and underparts, black; back, wings and tail, dark gray; eyes brown. In winter, the forehead, neck and underparts are white; nape and patch back of eye blackish.

In summer these little terns are found only in the interior, where they nest about marshy ponds. They are very pugnacious and will sometimes touch an intruder with their wings as they dart past. As usual with the family, they nest in colonies.

Notes.—A sharp “peek.” (Chapman).

Nest.—A pile of weeds and trash in sloughs on the prairies, or about the edges of marshy lakes, the nests often being surrounded by, and partly floating in the water. The three eggs are very dark colored, having an olive-brown or greenish background, blotched with black. (1.35 x .95).

Range.—Breeds in the interior from middle U. S. north to Alaska and Hudson Bay; winters south of the U. S., migrating along the Atlantic coast as well as in the interior.



NODDY

79. *Anous stolidus*. 15 in.



Adults with the crown silvery-white, the rest of the plumage being sooty-brown; the bill, feet and line to the eye are black. The plumage of these beautiful birds is very soft and pleasing to the eye. They look to be gentle and confiding, and a closer acquaintance shows that they are. They will frequently allow themselves to be touched with the hand before they leave their nests. They are abundant in some of the Bahaman and West Indian Islands, where they nest in company with other species.

Notes.—A hoarse reedy “cack” increasing to a guttural “k-r-r-r-r-r-r.” (Chapman).

Nest.—Of sticks and grasses, placed at low elevations in the tops of trees and bushes, or upon the ground. The single egg that they lay is buffy, spotted with black and brown. (2.00 x 1.30).

Range.—Breeds north to the Bahamas and on Bird Key near Key West; rarely wanders on the Atlantic coast to South Carolina.

SKIMMERS—Family Rynchopidæ

BLACK SKIMMER

80. *Rynchops nigra*. 18 in.

These strange birds are not apt to be mistaken for any other. They are locally abundant on the South Atlantic coast as far north as Virginia. Their flight is swift and more direct than that of terns; they fly in compact flocks, in long sweeps over the water, feeding by dropping their long, thin mandible beneath the surface and gathering in everything edible that comes in their path.

Notes.—Baying like a pack of hounds.

Nest.—Their 3 or 4 eggs are deposited in hollows in the sandy beaches. They are creamy-white, beautifully marked with blackish-brown and gray. (1.75 x 1.30).

Range.—Breeds on the Gulf coast and on the Atlantic coast to New Jersey; after nesting, they occasionally wander northward as far as Nova Scotia; winters from the Gulf States southwards.





TUBE-NOSED SWIMMERS—Order Tubinares
SHEARWATERS—Family Procellariidæ
FULMAR

86. *Fulmarus glacialis*. 19 in.

Bill short and stout, compared to that of the shearwaters, strongly hooked at the tip and with the nostrils opening out of a single tube, prominently located on the top of the bill. They have two color phases, the light one being gull-like, but the tail is gray like the mantle; eyes brown; bill and feet yellowish. In the dark phase they are uniformly gray above and below. These plumages appear to be independent of sex or age. They are extremely abundant at some of their breeding grounds in the far north. The birds are constant companions of the whalers, and feed largely upon blubber that is thrown overboard.

Nest.—Their single white eggs are laid upon bare ledges of sea cliffs. (2.90 x 2.00).

Range.—Breeds in the North Atlantic and Arctic Oceans from Labrador and northern Scotland northward; winters south regularly.

CORY SHEARWATER

88. *Puffinus borealis*. 21 in.

This rare bird is found off the coast of New England and in Long Island Sound from July to September. It is slightly larger than the similar Greater Shearwater, the back and head are lighter in color, the entire underparts are white, and the bill is yellowish. Its nesting habits and eggs are unknown, but they are supposed to breed in the Antarctic regions.

The majority of specimens that have been taken have been found off Chatham, Mass.

AUDUBON SHEARWATER

92. *Puffinus lherminieri*. 12 in.

This small shearwater, except in point of size, is quite similar to the following, but the under parts are white, except the under tail coverts which are sooty; the back and head are somewhat lighter too. They nest in abundance on some of the Bahaman and West Indian Islands, and can usually be met with off the South Atlantic coast in summer.

Their eggs, which are pure white (2.00 x 1.35), are deposited at the end of burrows dug by the birds.





GREATER SHEARWATER

89. *Puffinus gravis*. 20 in.

Entire upper parts, top and sides of head, bill and feet, grayish or brownish-black; middle of belly and under tail coverts dusky. This species is the most abundant of the shearwaters found off our coast. They are constant attendants of the fishermen when they are at work, and at other times are usually to be seen flying low over the water, or resting in large bodies upon its surface. Their flight is peculiar and distinctive,—three flaps of the wings then a short sail, repeated over and over. Possibly this habit is acquired by their swooping down into the troughs of waves, then flapping to clear the next crest. They are very greedy and continually quarreling among themselves in order to get the lion's share of the food. They are called "Haglets" by the fishermen.

Notes.—Harsh, discordant squawks when feeding.

Nest.—While the habits of these birds are well known their breeding places are yet a mystery.

Range.—Whole North Atlantic coast in summer.

SOOTY SHEARWATER

94. *Puffinus griseus*. 17 in.

Sooty grayish-black all over except the under wing coverts, which are whitish; eye brown, bill and feet black. A few of these may usually be seen with flocks of the Greater Shearwaters, and sometimes a flock composed entirely of this variety will be encountered. They are expert swimmers on the surface of the water, but I have never seen one dive. Their food is almost if not wholly composed of oily refuse gathered from the surface of the water. In order to take flight, they paddle along the water a few steps; it is difficult for them to rise, except against the wind. If you sail upon them from the windward, they go squawking and pattering over the water in all directions, and can frequently be caught in nets. They are very tame, and will sometimes take food offered them, from the hand.

Notes.—Guttural squawks like those of the large species.

Range.—North Atlantic coast in summer.





STORMY PETREL

104. *Thalassidroma pelagica*. 5.5 in.

Smallest of our petrels, and darker than either the Leach or Wilson; tail square; upper tail coverts white, tipped with black.

This species is rare on the coasts of this country, but is common on the shores of the old world. It is the original "Mother Cary's Chicken." They nest abundantly on the shores of Europe and the British Isles.

Their single white eggs, deposited at the end of burrows, are dull white with a faint wreath of brown dots.

WILSON PETREL

109. *Oceanites oceanicus*. 7 in.

Tail square at end; coverts white, not tipped with black; legs long, with yellow webs. This species is very abundant on our Atlantic coast from July to Sept., spending the summer here after having nested in the Kerguelen Is. in February. Their upper parts are much more darker than those of Leach Petrel.

Their note is a weak twittering "keet-keet."

LEACH PETREL

106. *Oceanodroma leucorhoa*. 8 in.

Tail forked; tail coverts white, not tipped with black; legs much shorter than those of Wilson Petrel, which is the only other common species on our eastern coasts. Leach Petrel is a very abundant breeding bird on Maine islands and northward. Some of the soft peaty banks of islands are honeycombed with entrances to their burrows, which extend back, near the surface of the ground, for two or three feet, and terminate in an enlarged chamber. Here one of the birds is always found during the period of incubation, and sometimes both birds, but one is usually at sea feeding during the daytime, returning at night to relieve its mate. All petrels and their eggs have a peculiar, characteristic and oppressive odor.

Notes.—A weak clucking.

Nest.—Single egg at end of burrow; white with a very faint ring of brown dots around the large end.

Range.—Breeds northward from Maine; winters to Virginia.





TOTIPALMATE SWIMMERS—Order Steganopodes
TROPIC BIRD—Family Phæthontidæ
YELLOW-BILLED TROPIC BIRD

112. *Phæthon americanus*. 30 to 34 in.

Form tern-like, but with the central tail feathers much lengthened (about 18 in.); legs short and not very strong; all four toes connected by webs.

These beautiful creatures fly with the ease and grace of a tern, but with more rapid beating of the wings. They are strong and capable of protracted flight, often being found hundreds of miles from land. They feed upon small fish which they capture by diving upon from a height above the water, and upon snails, etc., that they get from the beaches and ledges. They are very buoyant, and sit high in the water with their tails elevated to keep them from getting wet.

Nest.—A mass of weeds and seaweed placed upon rocky ledges. The single egg that they lay is creamy, so thickly sprinkled and dotted with purplish brown as to obscure the ground color. (2.10 x 1.45).

..Range.—Breeds north to the Bahamas and Bermudas.

GANNETS—Family Sulidæ

BLUE-FACED BOOBY

114. *Sula cyanops*. 28 in.

Bill, face and naked throat pouch, slaty-blue; eye yellow; feet reddish. Plumage white except the primaries, secondaries and other tail feathers, which are black. Young birds are streaked above with gray and brownish, and are dull white below. Boobies are birds of wide distribution in the Tropics, this species being rarely seen in southern Florida, but quite abundant on some of the West Indian islands. Owing to the numerous air cells beneath their skin, they are very buoyant and can ride the waves with ease during severe storms. They secure their prey, which is chiefly fish, by plunging after it.

Nest.—Their one or two eggs are laid usually upon the bare ground on low islands, or sometimes in weed-lined hollows. The eggs are pure white, covered with a thick chalky deposit (2.50 x 1.70).

Range.—Breeds north to the Bahamas and the Gulf



BOOBY

115. *Sula leucogastra*. 30 in.



This species, commonly called the Brown Booby, is brownish black with the exception of a white breast and underparts. Young birds are entirely brownish black; bill and feet greenish yellow; eye white. They are one of the most abundant breeding birds upon many of the Bahaman and West Indian Islands. They have great powers of flight and dart about with the speed of arrows, carrying their long bill and neck at full length before them. They are awkward walkers, and, owing to their buoyancy, it is difficult for them to swim under water, but they are unerring in securing their prey by plunging upon it from a height.

Nest.—They breed in colonies of thousands, laying their two eggs upon the bare sand or rocks. The eggs are chalky white, more or less nest stained. (2.40 x 1.60).

Range.—Breeds in the Bahamas and West Indies; wanders north casually to the Carolinas.

GANNET

117. *Sula bassana*. 35 in.

Primaries black; rest of plumage white; back of head tinged with straw color; bill and feet bluish black. Young grayish or brownish black, mottled above and streaked below. This species is the largest and most northerly distributed of the gannet family. Thousands upon thousands of them breed upon high rocky islets off the British coast. The only known nesting places used by them in this country are Bird Rock and Bonaventure Island in the Gulf of St. Lawrence; in these places they nest by thousands, their rough piles of seaweed touching each other in long rows on the narrow ledges.

Notes.—A harsh “gor-r-r-rok.” (Chapman).

Range.—North Atlantic, breeding, on the American side, only on islands in the Gulf of St. Lawrence. Winters along the whole United States coast, floating in large flocks out at sea, and rarely coming on land.





**DARTERS—Family Anhingdæ
ANHINGA; SNAKE BIRD**

118. *Anhinga anhinga*. 35 in.

Adult male with a glossy greenish-black head, neck and underparts, the neck being covered behind, in breeding season, with numerous filamentous, whitish plumes. Female and young with neck and breast fawn color in front. Eyes red, face greenish and gular pouch orange. Middle tail feathers curiously crimped. These peculiar birds spend their lives within the recesses of swamps, the more dismal and impenetrable, the better. They perch on limbs overhanging the water and dive after fish, frogs, lizards, etc., that pass beneath, from which they get one of their names, American Darter. They swim with the body submerged, with only their serpent-like head and neck visible; hence they are called Snake-birds.

Nest.—Of sticks and leaves in bushes or trees over water, large colonies of them nesting in the same swamp. The 3 to 5 eggs are bluish, covered with a chalky deposit (2.25 x 1.35).

Range.—Breeds north to the Carolinas and Ill. Winters in Gulf States.

CORMORANTS—Family Phalacrocoracidae
CORMORANT

119. *Phalacrocorax carbo*. 36 in.

Largest of our cormorants; tail with 14 feathers. Adults with glossy black head, neck and underparts; in breeding season with white plumes on the neck and a white patch on the flanks. Young with throat and belly white, rest of underparts mixed brown with black. Cormorants feed chiefly upon fish which they pursue and catch under water. They were formerly extensively, and are now to a less extent, used by the Chinese to catch fish for them, a ring being placed around their neck to prevent their swallowing their prey.

Nest.—Made of seaweed and sticks on narrow ledges of rocky islets or sea cliffs, this species being entirely maritime. The four eggs are greenish-white, covered with a chalky deposit. (2.50 x 1.40).

Range.—Breeds from Nova Scotia and Newfoundland north to Labrador and Greenland; winters south to the middle states.





DOUBLE-CRESTED CORMORANT

120. *Phalacrocorax auritus*. 30 in.

Tail with 12 feathers; distinguished from the last species in any plumage by the shape of the gular sac; on the common Cormorant the feathers on the throat extend forward to a point, making the hind end of the pouch heart-shaped, while in the present species it is convex. In breeding plumage, this species has a tuft of black feathers on either side of the head. The throat pouch is orange yellow; eyes green. These cormorants are found to some extent along the Atlantic coast, in summer, from Maine northward, but they are chiefly birds of the interior, being particularly abundant in Manitoba.

Nest.—On ledges on the coast, and on the ground in the interior, or in trees. The nests are made of sticks and weeds, shallow, shabby platforms holding 3 or 4 eggs. The eggs are bluish-green and chalky.

Range.—Breeds from Maine, on the coast. Minnesota northward; locally in North Carolina. Winters in the Gulf States. 120a., Fla. Cormorant, found in the South Atlantic and Gulf States, is smaller.

MEXICAN CORMORANT

121. *Phalacrocorax vigua mexicanus*. 25 in.

Adults with feathers bordering on the gular sac, white. In breeding plumage, the sides of head and neck have tufts of filmy white feathers, eyes green, as they are in all cormorants. All cormorants are expert swimmers and fishermen. They never plunge for their prey, but pursue and catch it under water, the same as do the grebes. When perching, they sit erect with their neck bent in the form of a letter S. They fly with their necks outstretched, and with rather slow wing beats. They are very gregarious and nest in large colonies, this species always being found in swamps or heavy shrubbery, surrounding bodies of water.

Nest.—Usually in trees overhanging the water, or upon the ground, in either case being made of sticks and weeds. The 3 to 5 eggs are bluish-green, covered with a chalky deposit (2.25 x 1.35).

Range.—Breeds north to the extreme southern boundary of the United States; wanders north casually to Ill. in summer.





PELICANS—Family Pelecanidæ

WHITE PELICAN

125. *Pelecanus erythrorhynchus*. 5 feet.

White with black primaries. Eye white; bill and feet yellow, the former in the breeding season being adorned with a thin upright knob about midway on the top of the upper mandible. The large pouch, with which pelicans are armed, is used as a dip net to secure their food, which consists of small fish. The White Pelican scoops up fish as he swims along the surface of the water; when he has his pouch partially filled, he tilts his head, contracts the pouch, thereby squeezing the water out of the sides of his mouth, and swallows his fish.

Nest.—Of sticks and weeds on the ground on islands or shores of inland lakes. They breed in colonies, and lay their eggs in June. The two or three eggs are pure white (3.45 x 2.30).

Range.—Breeds in the interior from Utah and Minn. northward. Winters on the Gulf coast and in Florida; rare on the Atlantic coast.

BROWN PELICAN

126. *Pelecanus occidentalis*. 4.5 feet.

Pouch greenish; eye white; back of neck in breeding season, rich velvety brown; at other seasons the whole head is white. These pelicans nest abundantly on some of the islands on the Gulf coast of the U. S., on Pelican Island on the east coast of Florida, and sometimes on the coast of Georgia and South Carolina. Like the White Pelican, this species lives chiefly upon small fish, but they procure them in a different manner. They are continually circling about at a low elevation above the water and, upon sighting a school of fish, will plunge headfirst into it, securing as many as possible.

Nest.—Either on the ground or in low trees, in the latter case being more bulky than in the former; composed of sticks and weeds. The three to five eggs that they lay are pure white with the chalky covering common to eggs of birds belonging to this order.

Range.—Breeds on the Gulf coast, and on the South Atlantic, north to South Carolina; later may casually stray to New England; winters on the South Atlantic and Gulf coasts.





MAN-O'-WAR BIRDS—Family Fregatidæ
MAN-O'-WAR BIRD; FRIGATE BIRD

128. *Fregata aquila*. 40 in.

Eye brown; bill long, comparatively slender, and flesh colored; gular sac orange; feet small and weak, with the four toes joined by webs. Frigate birds are strictly maritime; they nest in large colonies and usually travel in large companies. In expanse of wing compared to size of body they are unequalled by any other bird, and in power of flight they are only surpassed, possibly, by the albatrosses. They can walk only with difficulty and are very poor swimmers, owing to their small feet and long tail, but they are complete masters of the air and delight to soar at great heights. Their food of small fish is secured by plunging, or preying upon other sea birds.

Nest.—A low, frail platform of sticks in the tops of bushes or low trees. They lay but a single white egg in March or April; size 2.80 x 1.90.

Breeds in the Bahamas, West Indies, Lower California and possibly on some of the Florida Keys.

ORDER ANSERES
AMERICAN MERGANSER

129. *Mergus americanus*. 25 in.

Bill, feet and eye red in male, the former with a black stripe along the top; plumage black and white, with a greenish-black head; no crest. Female gray and white, with brown head, crested; chin white; eye yellow. These birds have the bill long, not flattened, but edged with sharp teeth to grasp the fish, upon which they live to a great extent. They are exceptionally good swimmers for members of this family, and can chase and catch their fish, using their wings to aid their legs in propelling them through the water.

Nest.—In holes of trees, cavities among the rocks, or less often on the ground. The nest is made of leaves and grasses and lined with downy feathers from the breast of the female. The 6 to 9 eggs are creamy-buff (2.7×1.75); June.

Range.—Whole of North America. Breeds from New Brunswick, North Dakota and California, northward. Winters from the northern boundary of the U. S. south to the Gulf of Mexico.



RED-BREASTED MERGANSER

130. *Mergus serrator*. 22 in.

Eye, bill and feet red, like those of the last species, but the head is crested on the male, as well as the female, and a band across his breast is mixed rusty and black streaks. The female has not as brightly colored a head as the female of the American Merganser, and the throat is not pure white. They can be distinguished in any plumage, from the fact that the nostril is nearer the eye than it is the tip of the bill, while that of the last species is located midway between the eye and the tip of the bill. This is the species that is most often found in salt water. It is also found inland but not as commonly as the last.

Notes.—A low croak.

Nest.—On the ground, concealed in tufts of long grass or overhanging rocks. Their 5 to 10 eggs are olive buff in color (2.50 x 1.70) ; June, July.

Range.—Breeds from Maine and Ill., northward; winters throughout the United States.

HOODED MERGANSER

131. *Lophodytes cucullatus*. 17 in.

Bill short compared to those of other mergansers, and black. It is not apt to be mistaken for any other duck, because of its small size and the large crest with which both sexes are adorned, that of the male being black with a large, white patch, and that of the female plain brown.

The male has the power of raising or lowering his crest; when excited he will at times repeatedly open and shut it like a fan. When at a distance on the water, the male might possibly be mistaken for the Buffle-head, as that species also has white on the head, but its back also is largely white. Both male and female have yellow eyes.

Notes.—Low, muttered croakings.

Nest.—In holes of trees on the banks of, or near, streams or lakes. The bottom of the cavity is lined with grasses and down, and on this they lay 8 to 12 grayish white eggs (2.15 x 1.70); May, June.

Range.—Breeds locally throughout the U. S., but most abundantly north of our borders; winters in the South.



MALLARD

132. *Anas platyrhynchos*. 23 in.

Male.—Head, green; speculum purplish-blue; bill olive-green; legs orange; eyes brown. The female most closely resembles the Black Duck but is lighter colored, more brownish, and the speculum, or wing patch, is always bordered with white. This species is one of the handsomest and most valuable of ducks. It is the cogener of the domestic ducks, and is largely used as a table bird.

Their food consists chiefly of mollusks and tender grasses. These they usually get in shallow water by "tipping up," that is, reaching the bottom without going entirely under water. They also visit meadows and the edges of grain and rice fields for food.

Notes.—A nasal "quack," often rapidly repeated when they are feeding.

Nest.—Of grass, lined with downy feathers, concealed in tufts of grass near the water's edge. The 6 to 10 eggs are buffy or olive-greenish (2.25 x 1.65).

Range.—Breeds from the northern tier of states northward; winters in southern half of the U. S.

BLACK DUCK

133. *Anas rubripes*. 22 in.

General plumage mottled blackish, the feathers having lighter edges; throat, buffy, streaked with blackish; crown and line through eye, nearly solid blackish; speculum bluish-purple, with no white; bill greenish-black; legs brownish. Black Ducks breed locally in pairs, throughout northern United States and southern Canada. This is the species most often seen in New England. When in flight, it can usually be recognized by the dark colored underparts and the white lining to the wings. Its habits are just like those of the Mallard, with which it is closely related.

Notes.—A “quack,” like that of the Mallard.

Nest.—Placed on the ground, not far distant from the water's edge; made of grass and feathers; the 6 to 10 eggs are buff-colored (2.30 x 1.70); May, June.

Range.—Breeds locally from N. Y. and Iowa northward; winters south to the Gulf.



FLORIDA DUCK

134. *Anas fulvigula*. 21 in.



Much lighter than the Black Duck, all the feathers being broadly margined with buffy; throat nearly clear buffy without markings. The habits of this species, which is restricted to Florida and the Gulf coast to Louisiana, are the same as those of the northern Black Duck.

Notes.—Precisely like those of the Mallard.

Nest.—Of grass and down, on the ground, the eggs being like those of the Black Duck but averaging a trifle smaller (2.15 x 1.50); April.

Range.—Florida and the Gulf coast to La.; resident. 134a., Mottled Duck (*A. f. maculosa*), is very similar to the Florida species, but is mottled with black on the belly, instead of streaked. It is found on the coast of Texas and north to Kansas.

GADWALL

135. *Chaulelasmus streperus*. 20 in.

Male with chestnut wing coverts and white speculum; lining of wings white; eyes brown. The female is similar, but the back and wings are brownish-gray and the speculum gray and white. A rather rare migrant in New England, common in the Middle States and abundant west of the Mississippi. They are usually found in meadows and grain fields bordering marshes or lakes. As is usual with ducks, these do most of their feeding early in the morning or after dusk, and spend the greater part of the day in sleeping. They are of the most active and noisy of ducks, which accounts for their Latin name "*streperus*," meaning noisy.

Notes.—A rapid, shrill quacking.

Nest.—Feather-lined hollows in the ground, concealed by patches of weeds or tall grass. Eggs 7 to 10, creamy buff color (2.10 x 1.60); May, June.

Range.—Northern Hemisphere; breeds in northern United States, except the eastern portion, and in Canada; winters along the South Atlantic and Gulf coasts.

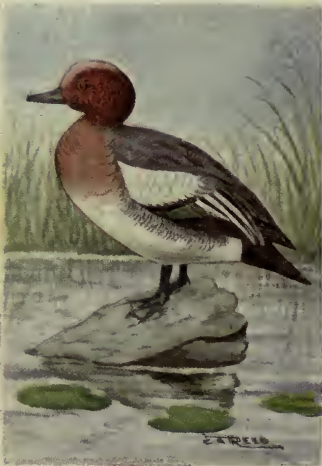


WIDGEON

Mareca penelope. 19 in.

Crown buffy; head reddish brown; wing coverts white; speculum green. Female with blackish speculum, and a pale, rusty head, neck, breast and sides, streaked or barred with blackish. The Widgeon is an Old World duck that rarely, and accidentally, strays to our Atlantic or Pacific coasts. It breeds in America only in the Aleutian Islands. Its habits are the same as the next species, our American Widgeon.

In the Old World it is regarded as one of the best of table ducks. Its food consists of marine and fresh-water insects, small shell-fish, seaweed and grass. Its nidification is just like that of the Baldpate.



BALDPATE; AMERICAN WIDGEON

137. *Mareca americana*. 19 in.

Wing coverts and top of head white; rest of head and neck finely specked with black; speculum and broad stripe back of eye, green; female, similar but with the whole head specked, and with no green on the ears. They can usually be identified at a distance by the absence of any dark areas, and when flying by the whiteness of the underparts. Baldpates are common and well known birds throughout North America, where they are called by a great variety of names, most of which refer to the bald appearance of the top of the head, owing to the white feathers. Their food consists of mollusks, insects, grain, and tender shoots of grass; their flesh is, consequently, very palatable and they are much sought as table birds.

Notes.—A shrill, clear whistle.

Nest.—Of grass, lined with feathers from the breast of the female; situated on the ground in tall grass near the water's edge. 8 to 10 buff eggs (2.15×1.50); June.



GREEN-WINGED TEAL

139. *Nettion carolinense*. 14 in.



Head reddish-brown; speculum and large patch back of eye, green; a white crescent in front of wing. Female with the head and neck whitish, finely streaked with dusky; wings as in male. These ducks are abundant in most parts of the United States, but are rather uncommon in New England. They are usually seen in flocks of ten or a dozen, and often a single bird, or two or three, may be found with a flock of Mallards. They frequent ponds, marshes and rush-grown shores of creeks, rivers or lakes, feeding upon shellfish, insects, aquatic plants and seeds.

Notes.—Shrill, piping whistles, rapidly repeated.

Nest.—On the ground under the shelter of tall grass; it is made of weeds and grass, and lined with feathers. They lay from 5 to 9 eggs, buffy (1.85 x 1.25); May, June.

Range.—Breeds from the northern tier of states northward; winters from Va., Ill. and British Columbia, southward.

BLUE-WINGED TEAL

140. *Querquedula discors*. 15.5 in.

Male.—Head gray, with a white crescent in front of the eye; underparts buffy, heavily spotted with black; wing coverts blue; speculum green. Female similar to the female Green-winged Teal, but with blue wing coverts. Teal can easily be distinguished from other ducks by their small size; the present species can usually be separated from the last, by the darker underparts, the longer neck and smaller head. Their flight is very rapid; it probably appears to be more rapid than that of other ducks because of the much smaller size of the Teal. They usually fly in compact lines and when ready to alight, do so very precipitously.

Notes.—A weak, but rapidly uttered quacking.

Nest.—Made of weeds, placed in tall grass bordering marshes or ponds. 6 to 10 buffy eggs are laid during May or June. (1.90 x 1.30).

Range.—Breeds from Maine, Ohio and Kansas northward; winters in the lower half of eastern United States.





CINNAMON TEAL

141. *Querquedula cyanoptera*. 16 in.

Male with the whole head, neck and underparts bright cinnamon; wings as in the Blue-winged species. Female similar to the female Blue-wing, but more rusty below, and the throat is tinted or quite dark, while that of the last species is usually light. These beautiful birds are very abundant west of the Rocky Mountains, but are of only casual or accidental occurrence east of the Mississippi Valley and sometimes Southern Florida. Their favorite nesting places are in fields of tall grass or clover, in close proximity to marshes or ponds.

Nest.—Compactly woven of grasses and lined with down; they lay from eight to as many as thirteen buffy white eggs, size 1.85 x 1.35; May, June.

Range.—Breeds in Western United States and British Columbia. Occurs rarely in the Mississippi Valley, Southern Texas and Florida.

SHOVELLER.

142. *Spatula clypeata*. 29 in.

Bill long, and much broader at the tip than at the base; head and speculum green; belly reddish-brown; breast and back, white; wing coverts, pale blue; eye yellow; feet orange. Female with head, neck and underparts, brownish-yellow, specked or streaked with dusky; wings as in the male, but not as brightly colored. Easily recognized in any plumage by the large, broad bill. If it were not for this large and ungainly shaped bill, this species might be classed as one of our most beautiful ducks, when in full plumage, which is only during the breeding season; at other seasons the head of the male is largely mixed with blackish.

Nest.—Of fine grasses and weeds, lined with feathers; they lay 6 to 10 grayish eggs (2.10 x 1.50); May.

Range.—Whole of the northern hemisphere. Breeds in America, from Minnesota and Dakota northwards, and locally farther south; winters on the South Atlantic and Gulf coasts; rare during migrations on the North Atlantic coast.





PINTAIL

143. *Dafila acuta*. 22 in.

Tail pointed, and, in the male, with the two central feathers considerably lengthened; neck unusually long and slender for a duck; form more slender than that of other ducks. Male with brownish head and stripe down back of neck; back and sides barred with black and white; speculum green, bordered with white or buff. Female mottled brownish, buffy and black, but to be known by the sharply pointed tail feathers and long neck; speculum brownish. These ducks are strong swimmers and good fliers, but poor divers; they get their food the same as does the Mallard by "tipping up," their long neck enabling them to feed in comparatively deep water. They are quite timid and lurk in the tall grass of the marshes during the daytime, feeding chiefly after dark.

Notes.—Quacks like those of the Mallard.

Nest.—On the ground, and like that of other ducks, well lined with feathers; 6 to 12 eggs (2.20 x 1.50).

Range.—Breeds from Ill. and Iowa northward; winters in southern half of the U. S.

WOOD DUCK

144. *Aix sponsa*. 19 in.

Head crested in both sexes, the feathers being especially lengthened on the nape. No other American duck that can possibly be mistaken for them. The male Wood Duck is the most beautiful of the family, in this or any other country, its only rival being the gaily colored Mandarin, of China. In summer, they may be found about the edges of clear ponds or lakes, especially those located in woods remote from human habitations. They are very local in their distribution and only one or two pairs will be found in a locality. In most parts of their range they are rapidly diminishing in numbers.

Notes.—A soft whistled “peet, peet” and a squawky, danger-note like “hoo-eeek, hoo-eeek.”

Nest.—In the hollow of a tree usually near the water's edge. The bottom is lined with soft downy feathers, and 8 to 15 buffy eggs are laid (2.00 x 1.50).

Range.—Whole of the United States and southern Canada, breeding locally throughout the range. Winters in southern half of the U. S.



REDHEAD

146. *Marila americana*. 19 in.



Note the shape of the bill of this species, as compared to that of the similarly colored Canvas-back. The male Redhead has a bluish bill with a black tip, and his back is much darker than that of the Canvas-back; eye yellow. The female has the throat white and the back plain grayish-brown, without bars. Redheads dive and swim with great agility; they feed largely upon water plants and mollusks which they get from the bottom of ponds, or along the seashore. They breed very abundantly in the sloughs of the prairies in the Northwest.

Notes.—A hollow, rapid croaking.

Nest.—Of grasses, lined with feathers, in marshes. Their 6 to 12 eggs are buffy white (2.40 x 1.70); May, June.

Range.—Breeds chiefly in the interior, from Minnesota and Dakota northward, and to a lesser degree north from Maine. Winters in southern part of the U. S.

CANVAS-BACK

147. *Marila vallisneria*. 21 in.

Differs from the Redhead in the shape of its black bill, its blackish forehead, very light back and red eyes. The female has the back grayish-brown, finely barred with black. Like the last species, Canvas-backs are excellent swimmers and divers, and can secure their food from a considerable depth. In winter they are found in great abundance on the Atlantic coast from Maryland southward, and are one of the most persistently hunted birds, for their flesh is much esteemed, and they have a high market value. They are seen in large flocks, and are difficult to approach, but are said to decoy as easily as any other.

Notes.—Harsh croaks, little different from those of the Redhead.

Nest.—On the ground in marshes or sloughs, the hollow being lined with grasses and feathers from the breast of the female; 6 to 10 eggs (2.40 x 1.70).

Range.—Breeds in the interior from Minnesota and Dakota northward; winters from Maryland and British Columbia southward. Rare in New England.





AMERICAN SCAUP DUCK

148. *Marila marila*. 18 in.

Head black, glossed with greenish; speculum white; bill dull bluish; eye yellow. Female resembles that of the Redhead, but has a white speculum. These ducks are perhaps better known as Blue-bills, than as Scaup Ducks. They are one of the most abundant migrants on the Atlantic coast, and are one of the most active of the family, diving at the flash of a gun.

Notes.—A peculiar grunting quack.

Nest.—Of grass and feathers on the ground in marshes.

Range.—Breeds from Minnesota and Dakota northward. Winters south of New England.

LESSER SCAUP DUCK

149. *Marila affinis*. 17 in.

Slightly smaller than the last, and with the head of the male glossed purple instead of green.

Range.—Breeding range same as that of the last; winters in the southern half of the U. S.

RING-NECKED DUCK

150. *Marila collaris*. 17 in.

Male with a narrow chestnut neck ring; head glossed with purple; back black; chin white; bill blackish, with a bluish band near the end; eye yellow. Female with white cheeks, eye ring and region about the base of the bill; otherwise similar to the female of the Redhead, but smaller.

These ducks are usually met in flocks of from one to three dozen, the same as the preceding two black-headed ducks. Their flight is very rapid, and they are equally agile when in the water. They are seen on the Atlantic coast only in winter, and remain just as far north as the water remains open.

Notes.—A low grunting “quanck.”

Nest.—Of grasses and feathers in marshes and on bogs. The 6 to 10 eggs are grayish-white (2.25 x 1.60); June.

Range.—Breeds in the interior of Minnesota northwards; winters throughout the United States.





BUFFLE-HEAD

153. *Charitonetta albeola*. 14 in.

Head iridescent with green, purple and blue, and with a large white patch extending from eye to eye, across the back of the puffy crest. Female with a white patch on either side of her brownish head; speculum white. They are known by a great variety of names such as "Butter Ball," "Spirit Duck," "Dipper," etc., the majority of which refer to the celerity with which they can disappear under the water. They are always on the alert and will dive at the flash of a gun. They are able to continue incessant diving for a long period and can remain under water for a long time. Their flight is very rapid, and when alighting in the water they make considerable splash, but can take wing from it easier than the majority of ducks.

Notes.—A single guttural croak.

Nest.—In hollow trees; eggs greenish gray (2.00 x 1.40) ; June.

Range.—Breeds from the northern boundary of the U. S. northward; winters throughout the U. S.

AMERICAN GOLDEN-EYE

151. *Clangula clangula americana*. 20 in.

Head puffy, or slightly crested. Male with greenish head and a round white spot between bill and eye. Female with a brownish head and white speculum.

Notes.—A hoarse croak, rarely uttered.

Nest.—In cavities of hollow trees near ponds or on the banks of streams. 6 to 10 grayish green eggs (2.30 x 1.70); June.

Range.—Breeds from the northern parts of the northern tier of states, northward; winters throughout the U. S.

• BARROW GOLDEN-EYE

152. *Clangula islandica*. 20 in.

Head bluish with a white crescent at base of bill; eye bright yellow in both this and the last species; female practically indistinguishable from the preceding, although the bill of the present species is shorter and comparatively higher at the base.

Range.—Breeds from Northern U. S. north to Labrador and Alaska, and in the Rockies, south to Colorado; winters in the northern half of the U. S.





OLD SQUAW; LONG-TAILED DUCK

154. *Harelda hyemalis*. ♂ 21; ♀ 16 in.

This species is one of the very few ducks that change their plumages in summer and winter. The female is marked similarly to the male but is very much duller colored, and lacks the long tail feathers with which the male is adorned. They are sea ducks and, while they are usually found to some extent on some of the larger lakes or ponds, during migrations, they are very abundant on the Atlantic coast. They are excellent swimmers and dive to great depths in search of food. It is said (Nelson) that in their summer home, during the mating season, they frequently dive under the water from the air, a habit that none of the other ducks, except rarely the Pintail, indulge in.

Notes.—A confused, but rather musical gabbling.

Nest.—On the ground near water; thickly lined with downy feathers; eggs laid in June.

Range.—Breeds from Labrador and Alaska northward; winters south to Long Island Sound and the upper Mississippi Valley.

HARLEQUIN DUCK

155. *Histrionicus histrionicus*. 17 in.

Male very oddly and handsomely marked, as shown; female blackish-brown, lighter below and with a whitish spot before and one behind each eye. During the winter, they are seen in flocks off the coast, from Maine and sometimes from Long Island Sound northward. In summer, they are usually found only in pairs along rivers or creeks, and in the Rocky Mountains they frequent the turbulent streams that are the homes of the Water Ouzel. When swimming, Harlequins sit high in the water, but they are able to get under the surface with the greatest of speed.

Notes.—A rapidly uttered, clattering whistle.

Nest.—On the ground, in crevices under rocks, the hollow being well lined with down; also said to nest in hollow trees; their 5 to 8 eggs are greenish-buff and measure 2.30 x 1.60; June.

Range.—Breeds from New Brunswick north and northwest to Alaska and the Arctic Ocean, and south in the Rockies to Colorado; winters south to the Middle States and Calif.





LABRADOR DUCK

156. *Camptorhynchus labradorius*. 20 in.

Male with the head, breast and wings, white; narrow stripe over the top of the head and down the back of the neck, ring around the neck, back, primaries and entire underparts, black. Female mottled brownish-gray and blackish, with white speculum.

Labrador Ducks were never very abundant within the memory of any living person, but they were occasionally shot and were found sometimes in the New York markets. At that time little heed was paid to them and they became extinct before anyone realized the fact. Their record has been traced down to 1875, since which time none have been taken. As far as known there are but 38 or 40 of them preserved. They were formerly found from Long Island Sound north to Labrador.



NORTHERN EIDER

159. *Somateria mollissima borealis*. 23 in.

Base of bill extends on either side of forehead in a point, a mark that will distinguish it from the next and very similar species, in any plumage. The female Eider presents a most remarkable difference in plumage from that of the male, and, unlike the females of most species, is a very handsome bird.

Nest.—Of grasses lined with down; concealed in tall grass or under bushes; the 6 to 10 eggs are greenish-drab (3.00 x 2.00); May, June.

Range.—Breeds on Labrador and Greenland coasts.

AMERICAN EIDER

160. *Somateria dresseri*. 23 in.

This is the Eider that is usually seen on the Atlantic coast and is the only one that breeds south of Labrador. The base of the bill, that encroaches on either side of the forehead is rounded, and broader than that of the last. They nest from Maine (rarely) northward, and winter south to Long Island.





KING EIDER

162. *Somateria spectabilis*. 23 in.

The feathers of the sides of the bill of this species do not reach to the nostril, while in the two preceding ones, they do. This is the chief point of difference in distinguishing the females, which very closely resemble each other. Adult males, as can be seen, are very different from the other Eiders. As is usual with the Eiders, the male of this species moults to a plumage resembling that of the female, during the late summer, when he has shed his wing feathers and is, for a period flightless. This is a part of Nature's plan to give her feathered children protection when they most need it. While the females are sitting upon the eggs, they are deserted by the males, which congregate in large flocks, and drift aimlessly about until joined by the females in Fall.

Nest.—A depression in the ground, lined with feathers. Eggs like those of the last species.

Range.—Breeds from northern Labrador and the Aleutian Islands, Alaska, northward; winters south to Maine and casually to Long Island Sound.

AMERICAN SCOTER

163. *Oidemia americana*. 19 in.

Adult male, entirely black; bill black with enlarged base yellow; eye brown. Female plain brownish-black, lighter below. All the Scoters are better known to sportsmen as "coots," this species being the Butter-billed Coot, while the female is the Gray Coot.

Notes.—A long musical whistle. (Elliott).

Nest.—On the ground usually well concealed. Their 6 to 10 eggs are a creamy buff color (2.50 x 1.70).

Range.—Breeds from Labrador northward. Winters south to the Middle States and Lake States.

WHITE-WINGED SCOTER

165. *Oidemia deglandi*. 22 in.

This species is the most abundant of the Scoters wintering off the New England coast, where they congregate in immense "rafts," floating off shore.

Nest.—Concealed in long grass, lined with feathers; 5 to 8 buffy eggs (2.75 x 1.85); June.

Range.—Breeds from North Dakota and Newfoundland northward; winters in the northern half of U. S.



SURF SCOTER

166. *Oidemia perspicillata*. 20 in.



Male black with a white patch on top of the head and another on the nape; eye white; bill red, white and yellow, with a large black spot near the base. Female a uniform grayish brown, lighter below, with a whitish patch in front of each eye; young birds are like the female but also have a white patch back of the eye. That they are very abundant is apparent from the size of a single flock seen by Nelson about 10 miles out to sea from St. Michaels, Alaska; it formed a continuous band for about 10 miles in length and from a half to three-quarters of a mile in width. All the "Coots" have heavy bodies, making it rather difficult for them to rise from the water, along which they run for a few yards before springing into the air.

Nest.—A feather lined hollow on the ground, like that of other ducks; eggs creamy buff (2.40 x 1.70).

Range.—Breeds from Newfoundland, Manitoba, and British Columbia northward; winters south to Virginia, Ohio and California.

RUDDY DUCK

167. *Erismatura jamaicensis*. 15 in.

Bill short, broad, with an upturned appearance; tail feathers very narrow, stiff and pointed. Male in summer, with black crown, whitish cheeks, throat and belly, and reddish-brown back, breast and sides. In winter, the cheeks are duller colored and the back mixed with grayish. Female with crown, back and sides grayish; cheeks showing traces of white as on the male. These ducks are very sprightly, either in the water, on land, or a-wing. Their flight is very rapid, their stiff, short wings producing a buzzing sound that gives them the local name of Bumble Bee Coot. They have a great variety of names referring to some character of their form, such as Broad-bill Dipper, Bull-neck, Bristle-tail, etc.

Nest.—Of grasses or rushes, lined with down, placed in tall grass near the water or in clumps of rushes growing out of the water; 6 to 12 grayish eggs (2.40 x 1.75), very large for the size of the bird; June.

Range.—Breeds in the interior of northern U. S. and in Canada; winters in southern United States.





LESSER SNOW GOOSE

169. *Chen hypeboreus*. 25 in.

Plumage entirely white; ends of primaries black; top and back of head sometimes tinged with rusty; bill and feet red; eye brown. This variety is like the next, which is the bird commonly seen in the East, although the Lesser Goose is found east to the Mississippi Valley.

GREATER SNOW GOOSE

169a. *C. h. nivalis*. 33 in. .

Snow Geese travel in large flocks, the same as do the Canada Geese, led by an old male that has traveled the airy road many times before. At times, flocks are seen on the prairies, so large that they give the ground the appearance of being covered with snow. They are very wary and will all take flight at the first alarm.

Notes.—Usually silent, but they sometimes “honk.”

Nest.—Of grasses, sometimes, but not always, lined with down; 5 to 8 buffy white eggs (3.40 x 2.40); June.

Range.—Breeds in the Arctic regions; winters on the South Atlantic coast.

BLUE GOOSE

169.1. *Chen caerulescens*. 28 in.

Head and neck white, often tinged with rusty on the face; underparts brownish-gray. Young birds are similar but the head is brownish; bill and feet reddish; eye brown. This handsome goose is found only in the interior, but a few accidental birds have been taken on the Atlantic and two on the Pacific coasts. While it is not an abundant species, flocks of twenty or thirty are often seen in the Mississippi Valley. They are sometimes seen with Snow Geese, but for the most part keep by themselves. On their march to their breeding grounds they branch off from the routes chosen by the Snow Geese, and turn to the eastward, breeding east of Hudson Bay, while the white geese are found chiefly to the westward.

Nest.—A glass-lined depression on the ground; eggs deep buff color (2.50 x 1.75); June.

Range.—Breeds in the Hudson Bay region and in Labrador; winters on the west coast of the Gulf of Mexico, migrating through the Mississippi Valley.





AMERICAN WHITE-FRONTED GOOSE

171a. *Anser albifrons gambeli*. 28 in.

Forehead, white; head and neck gray; under parts mixed black and white; feet yellow; bill pinkish; eye brown. These geese reach the U. S. on their return from the Arctic regions about the first of October; they are very abundant on the Pacific coast and fairly common in the Mississippi Valley, but are rare on the Atlantic coast. They are very noisy birds and in some sections of the country are known as Laughing Geese. From being shot at so frequently, they are very wild and difficult to approach, sentinels being stationed to give alarm if danger approaches, when they are feeding.

Notes.—A confused honking, likened to laughter.

Nest.—Of grasses on the ground, usually in marshes; nearly always lined with down from the breast of the female. The four to nine eggs are buffy (3.00 x 2.05); May, June.

Range.—Breeds in the Arctic regions, chiefly west of Hudson Bay; winters south to the Gulf coast and Calif.: rare on the Atlantic coast.

CANADA GOOSE

172. *Branta canadensis*. 38 in.

The best known and most widely distributed of our geese. In the northern states they are always eagerly looked for in the Spring, for their arrival is a sure indication that the backbone of Winter has broken. Their familiar honking is heard long before the thin, wavering, black, V-shaped line appears on the horizon; as it draws nearer, the volume of sound increases, resembling the baying of a pack of hounds, and at last, the flock sweeps overhead with deafening cries; large birds, with long necks fully outstretched, wings beating the air in unison, and all following the leadership of one bird in their journey over their invisible path.

Nest.—Of grasses and feathers, on marshes or near ponds; 4 to 9 buffy drab eggs (3.50 x 2.50); May, June.

Range.—Breeds from Labrador, Dakota, and British Columbia northward; winters in Southern U. S. 172a. Hutchins Goose (*B. c. hutchinsii*) is smaller (31 in.) and found in Western N. A., casually east of the Miss. 172c. Cackling Goose (*B. c. minima*) is still smaller (24 in.); is found in the same range.



BRANT

173a. *Branta bernicla glaucogastra*. 26 in.

Head, back and breast black, sharply defined against the grayish-white of the underparts; a whitish patch on either side of the neck. They are very abundant on the Atlantic coast in winter, and when not too persistently hunted are unsuspicious; they do not fly in regular formation like the Canada geese, nor do they appear to have any special leader. They are inquisitive and easily decoyed, and consequently large numbers of them are shot annually. They are noisy, their notes being a peculiar, guttural "car-r-r-rup" or "r-r-rup," and when in the presence of a large flock, the sound is deafening. (Elliott).

They feed upon tender water plants and roots, which they get from the bottom by tipping up, and not by diving.

Nest.—A depression in the ground, lined with grass and feathers; eggs grayish-buff (2.80 x 1.75): June.

Range.—Breeds in the Arctic regions; winters on the Atlantic coast and less often in the Mississippi Valley, from Mass. and Ill. southward.

BLACK-BELLIED TREE DUCK

177. *Dendrocygna autumnalis*. 22 in.

Legs and neck long; bill and feet pinkish; eye brown; head and neck chiefly gray; breast and back brownish; belly and under tail coverts, black; wing-coverts white and gray. These peculiar shaped ducks are not rare in certain localities along the Rio Grande in Southern Texas, and are abundant in Mexico and Central America. They are not timid and are frequently caught and domesticated. They can walk and run gracefully, and often feed in grain fields at considerable distance from water; they also eat shoots and seeds of aquatic plants. Like the Wood Duck, they nest in hollow trees, often at some distance from water, and, as soon as the young appear, help them to the ground and lead them to the water.

Notes.—A loud, shrill whistle.

Nest.—Usually lined with down, in cavities of hollow trees; the 6 to 15 eggs are pure white (2.05 x 1.50); May.

Range.—Found in the United States only in the Southern part of Texas.



FULVOUS TREE DUCK

178. *Dendrocygna bicolor*. 22 in.



Form like that of the last, but with the head, neck, rump and underparts rusty, and with no white in the wings. The Fulvous Duck is much more abundant in the United States than the Black-bellied, and is casually found as far north as Kansas and Nevada, while it is regularly found in Texas and Louisiana, where it is known as the Long-legged Duck. Owing to the nature of its diet, which consists chiefly of grain, roots and water plants, the flesh of this bird is esteemed as an article of food, and many are killed for such. When wounded, they are said to be difficult to capture, owing to the speed at which they can run; they also swim and dive well.

Nest.—Located in the hollow of a tree, the bottom of the cavity usually being lined with feathers. They lay from ten to fifteen pure white eggs, and as many as thirty-two have been found in one nest, but these were probably laid by two or more females: May.

Range.—Texas and Louisiana, and north casually to Kansas and Nevada. Winters in Mexico.

WHISTLING SWAN

180. *Olor columbianus*. 54 in.

Nostril situated at a greater distance from the eye than it is from the end of the bill; a small yellow spot on the bare space in front of the eye; plumage entirely white; bill and legs black. This is the swan that is found on the Atlantic coast, and is most abundant in the Miss. Valley. It is rare north of Chesapeake Bay, but it is abundant from there southward, in winter. They make a beautiful sight against the blue sky, their immense white wings slowly fanning the air and their long necks extended.

Notes.—A peculiar, flageolet-like “Who, who, who.” (Elliott).

Nest.—A mass of weeds, grass and feathers on the ground; 3 to 6 greenish buff eggs (4.00 x 2.75).

Range.—Breeds within the Arctic Circle; winters south to the Gulf of Mexico; rare north of Va. on the Atlantic. 181. TRUMPETER SWAN (*Olor bucinator*) is larger (65 in.) and is found west of the Miss. It breeds from Ia., northwards. Nostril midway between eye and tip of bill.





ORDER ODONTOGLOSSÆ

FLAMINGOES—Family Phœnicopteridæ

FLAMINGO

182. *Phœnicopterus ruber*. 46 in.

These large, beautiful birds are found in Southern Florida, and casually north to South Carolina, but it is doubtful if they breed within our limits. They fly with their long neck fully extended and legs trailing behind, a remarkable sight when a flock of several thousand is seen in flight. In 1904, Mr. F. M. Chapman visited a large breeding colony in the Bahamas, photographing the birds in every conceivable position. Their nests are mud-built structures, about a foot high, placed close together in the marshy interior of low lying islands, or on sandbars. The top is slightly hollowed out to receive the single egg (3.40 x 2.15), which is covered with a chalky deposit. They sit astride the nest with their legs doubled under them.

Notes.—A honking like that of Canada Geese.

Range.—Resident in the Bahamas and West Indies; north to Florida.

HERONS, STORKS, IBISES—Order Herodiones

Family Plataleidæ

ROSEATE SPOONBILL

183. *Ajaia ajaja*. 33 in.

Head entirely bald in adults, and only feathered to the eyes in young birds; bill long, thin, flat and very much broadened at the end, variously colored with green, blue and orange; eyes and legs red. Young birds, without the bright carmine shoulders or saffron tail of the adults. These peculiar but handsomely tinted birds were formerly abundant in Florida and in the adjoining states, but so many have been killed for their feathers, that they are now rare and confined to the most inaccessible swamps of Southern Florida. Spoonbills travel and nest in communities; their flight is strong and Heron-like, but they carry their neck fully extended, their ample wings slowly beating the air.

Nest.—A frail structure of sticks, in mangroves or low trees; 3 or 4 pale, greenish blue eggs splashed with brown (2.50 x 1.70); May, June.

Range.—Florida and the Gulf States, and Southern Texas.





IBISES—Family Ibirdidæ

WHITE IBIS

184. *Guara alba*. 25 in.

Tips of primaries black; plumage, otherwise, entirely white; bill, face and legs, orange red or carmine. Young with head and neck, and more or less of the body, brownish or streaked with brown. White Ibises are very abundant in the South Atlantic and Gulf States, breeding in immense rookeries in remote swamps, placing their frail platforms in bushes over the water or sometimes weaving nests out of rushes, attached to upright canes and brake. These rookeries are very untidy and offensive to human beings, and millions and millions of black flies and mosquitoes will be encountered by any who wish to investigate the breeding places of these birds.

Notes.—A loud, harsh croak.

Nest.—Of twigs in bushes, or of rushes in the tangle and brake of marshes; 3 or 4 whitish eggs, handsomely spotted and splashed with brownish.

Range.—Breeds north to South Carolina and Southern Ill. Winters from the Gulf States southward.

SCARLET IBIS

185. *Guara rubra*. 25 in.

This beautiful species is wholly bright scarlet, except for the black primaries; young birds are found in all stages of plumage from the brownish-gray and white of the first year birds, to the full plumage of the adults.

This is a tropical ibis that abounds in northern South America, but is yearly decreasing in numbers, owing to the persistency with which they are hunted, their feathers being much in demand for tying trout flies, as well as for decorating hats, a barbarous practice that is being stopped in this country, by legislation and public sentiment.

Nest.—In rushes or mangroves like that of the last species; the eggs are the same size but average brighter in color (2.25 x 1.60).

Range.—Northern South America, casually north to the Gulf States, but has not been reported for years in our country.



GLOSSY IBIS

186. *Plegadis autumnalis*. 25 in.

Like the next, which is our common species, but with the feathers about the face not white, as in that species.

Range.—Tropical America, casually north to southeastern United States.

WHITE-FACED GLOSSY IBIS

187. *Plegadis guarauna*. 24 in.

Bill, face and legs, carmine red; feathers bordering the face, white; wings and tail glossy greenish-black; rest of plumage rich chestnut-brown, glossed with purple on the head. They nest by thousands in extensive swamps, in company with herons.

Nest.—Strongly and compactly woven of dead rushes attached to living stalks, well cupped, thus differing from that of any of the herons; eggs plain greenish blue (1.95 x 1.35); deeper and brighter than those of any of the herons.

Range.—Texas, New Mexico, Ariz., Calif., and southward.



STORKS—Family Ciconidæ
WOOD IBIS

OF THE
UNIVERSITY
OF
CALIFORNIA

188. *Mycteria americana*. 40 to 46 in.

Entire head unfeathered and covered with scales; both head and legs are pale bluish in color; eye brown; plumage entirely white except for the glossy purplish-black primaries and tail. This large bird is a true stork and is very similar to the common European Stork. The name ibis was incorrectly and unfortunately applied to this species, and tends to confusion. Its flight is very easy and graceful, accomplished with a slow flapping of the wings, alternated at short intervals with long sails. At times they mount high in the air and circle about like hawks or vultures.

Notes.—Loud, hoarse croaks.

Nest.—A shallow platform of sticks in bushes or at low elevations in trees, usually over the water, the birds swarming in the most inaccessible swamps. Their 3 or 4 eggs are white and granular.

Range.—Breeds in the Gulf States and north to South Carolina; later may stray north to New York.



BITTERNS, ETC.—Family Ardeidæ

AMERICAN BITTERN

190. *Botaurus lentiginosus*. 28 in.

Much variegated with brown and yellowish-brown; adults with a long, broad, black stripe on either side of the white throat; eye yellow; legs and base of bill greenish-yellow. Bitterns have a great many local names, most of which refer to the peculiar pumping noise that the male makes during the mating season. Perhaps the most common of these is "Stake-driver." Bitterns are found in bogs or marshes; they remain concealed by the tall grass until any intruder is very near, before they take flight.

Notes.—A squawk of alarm; song a hollow "punk-er-lunk."

Nest.—A grass-lined hollow in tufts of grass or turf, in the middle of bogs or marshes. 3 or 4 plain brownish eggs, measuring 1.95 x 1.50. But one or two pairs nest in a locality; May, June.

Range.—Breeds in the northern half of the United States and Southern Canada; winters in southern half of the United States.



LEAST BITTERN

191. *Ixobrychus exilis*. 13 in.

Male with the crown and back glossy black; female with these areas hair-brown, and streaked with brown below. These diminutive little bitterns are very shy and retiring, and seldom seen away from the reed grown marshes or ponds that they frequent.

Notes.—A hoarse croak, and a softly repeated "coo."

Nest.—A platform of dead rushes twisted about the living stalks. The 3 or 4 eggs are pale bluish white. (1.2 x .9); May, June.

Range.—Breeds from the Gulf States, locally to Southern Canada; winters from the Gulf States southward.

CORY LEAST BITTERN

191.1. *Ixobrychus neoxynus*. 13 in.

This extremely rare little bittern is of the same size and form as the common species. The crown, back, wing-feathers and tail are black, and the rest of the plumage is more or less intense chestnut brown. The majority of specimens have been taken in Florida and Ontario, with one each from Michigan and Massachusetts. There are about twenty of them known to be preserved.





GREAT WHITE HERON

192. *Ardea occidentalis*. 50 in.

This is the largest heron that we get in North America, surpassing even the Great Blue. Its plumage is entirely white; no "aigrettes" on the back, but two white plumes on the back of the head and the feathers of the breast much lengthened, the same as in adult Blue Herons; bill, eyes and legs yellow. A gray phase of this heron, or a hybrid between it and the Great Blue Heron, is occasionally found in Southern Florida; it is similar to the Blue Heron, but paler and with the head and neck white.

Nest.—A large platform of sticks placed in the tops of mangroves. Their three or four eggs are not distinguishable from those of the next species; June.

Range.—Said to be not uncommon on some of the Florida Keys.

GREAT BLUE HERON

194. *Ardea herodias*. 48 in.

Adult Blue Herons are very handsome birds, as may be seen in the illustration. Young birds, and nine out of ten that we see will be young birds, are much duller colored and have no plumes. It takes several years for them to attain their perfect plumage. Their nests are placed in the tops of the tallest trees and are, consequently, difficult to get at. In some heronries, trees have been found containing as many as 40 nests. In flight, herons always carry their head drawn in against the shoulders, the neck being curved below.

Nest.—A platform of sticks in tall trees in wet woods. 3 or 4 pale greenish-blue eggs (2.50 x 1.50); May, June.

Range.—Breeds locally throughout the United States and Canada, either in colonies, or single pairs where they are persecuted as in New England; winters in Southern U. S. 149b. Ward Heron (*A. h. wardi*) is similar but lighter below and the neck is darker and browner; it abounds in Florida.





AMERICAN EGRET

196. *Herodias egretta*. 41 in.

Entirely white, with no plumes on the head but with a long train of straight "aigrette" plumes growing from the middle of the back; bill and eye, yellow; legs and feet, black. Young and adults in winter, without plumes. The hand of man, to gratify the desire of woman, has ruthlessly slaughtered thousands upon thousands of these exquisitely beautiful birds; in Florida where they were abundant a few years ago, only stragglers are seen. A few of these heronries are yet left, either because they are in wildernesses where man has not yet penetrated, or are strongly protected by the humane owners of the land. It is only at the breeding places that they can be killed in numbers, as at other times they are shy; and it is only during nesting season that they wear their beautiful plumes.

Nest.—A frail platform of sticks, at low elevations, in bushes usually over water in swamps. Eggs, 3 or 4 in number, plain bluish green (2.25 x 1.45); April to June.

SNOWY HERON

197. *Egretta candidissima*. 24 in.

Plumage white; in breeding season with numerous recurved plumes growing from the middle of the back; long crest of plumes on the back of the head, and on the breast. Bill black, greenish at the base and about the eyes; legs black; feet yellow. This species is the most beautiful of the Egrets and consequently is the one that has suffered most from "plume hunters." Although they are now protected wherever they can be, their ranks have been so decimated that extermination is threatened within a few years; the demand for their plumes is still so great that lawless men will commit murder to obtain them (Warden Bradley having been shot in 1905, while preventing the destruction of herons in Southern Florida).

Nest.—In swamps, in company with other small herons, the nests being frail platforms of twigs on branches of trees. Eggs pale greenish-blue.

Range.—Breeding range formerly coincident with that of the last, but now very rare.





REDDISH EGRET

198. *Dichromanassa rufescens*. 29 in.

Two color phases, the gray being the most common:— Head and neck, including plumes on neck and breast, reddish-brown; rest of plumage gray, the plumes on the back being lightest; feet blue-black; bill yellowish at the base and black at the tip. In the white phase, the plumage is entirely, or nearly, white, including the plumes. As usual, these egrets associate in large flocks, of their own kind or other small herons. Their food consists of small fish, frogs, lizards, insects and mice. They will stand motionless in shallow water, for a long time waiting for their prey, and woe to the creature that comes within striking distance of their spear-like bill. Their flight is strong and graceful as they make their way from their breeding places to their feeding grounds on the mud flats, left bare by the receding tide.

Nest.—Like that of other herons; eggs slightly more greenish blue than those of the other egrets (1.9 x 1.45); May, June.

Range.—Breeds in the Gulf coast states, and north to South Carolina.

LOUISIANA HERON

199. *Hydranassa tricolor ruficollis*. 26 in.

In breeding plumage, with short plumes on the back, extending three or four inches beyond the tips of the wings. Throat, front line of neck, and underparts white; head and neck reddish-purple; back and wings slaty; crest whitish; bill and legs dark; eyes red. A very abundant species throughout the year, on the Gulf coast of the United States. Their bearing is one of self-esteem and their walk slow and stately; they are often called "Lady of the Waters," because of the imposing picture that they make. They are very sociable, rarely quarrel among themselves, and are usually found in company with Little Blue Herons and Egrets.

Nest.—They nest in communities in mangroves in southern Florida and in swamps, in company with many other species, in the northern portions of their range. Their nesting habits and eggs are the same as those of the Snowy Heron.

Range.—Breeds and is resident in the South Atlantic and Gulf States.





LITTLE BLUE HERON

200. *Florida caerulea*. 22 in.

Head and neck, maroon; rest of plumage slaty-blue; plumes on back of head, breast and on the back; eyes yellow; bill and feet greenish. Young birds are white, usually with a tinge of bluish on the forehead and ends of the wings. They can be distinguished from the similar Snowy Herons by the greenish-black legs, while the legs of the latter are black with yellow feet. These little herons are resident and most abundant in the South Atlantic and Gulf States. They are at home in and enjoy the rankest and most impenetrable swamps, where only birds or reptiles can tread with safety. Yet herons are an interesting group and, in their own way, perform useful service to mankind by destroying quantities of reptiles, insects and mice.

Nest.—The nesting habits and eggs of this species are the same as those of the little Snowy Heron and the eggs cannot be distinguished with certainty.

Range.—Breeds north to Virginia and Illinois; later may stray north to New England.

GREEN HERON

201. *Butorides virescens*. 17 in.

Smallest of the family, except the Least Bittern. In breeding plumage, they are one of the most beautiful of herons. They may be found in marshes; along creeks or about the edges of shallow ponds or lakes. They are often seen sitting upon a partly submerged log sunning themselves, or waiting for a tempting frog or fish to pass within reach. When they are among rushes, they will usually attempt to escape observation by mimicking their surroundings, and they do so very successfully. When they are alarmed and take flight they utter a single sharp shriek. At other times they utter a series of hollow screams, "qu-ick, qu-ick," and also a hollow croak.

Nest.—In bushes, in communities or in company with other species in the south, but usually a few pairs nest in a locality in the northern states and Canada. Eggs pale bluish-green (1.45 x 1.10).

Range.—Breeds from the Gulf to Manitoba and Nova Scotia; winters in the Gulf States.





BLACK-CROWNED NIGHT HERON

202. *Nycticorax nycticorax naevius*. 24 in.

Bill much heavier than that of the herons; neck and legs shorter and stouter; eye red; bill black; legs and bare space in front of eye, pale yellowish-green. Young birds are mottled with brownish-gray and white; eyes yellow. As their name implies, these herons do most of their feeding after dusk, sleeping during the greater part of the day. Their heronries are usually located in swamps, and preferably in coniferous trees. A visit to one of these is very interesting, but old clothes must be worn, for their homes are filthy. On your approach, the old birds flap away, and circle about with squawks of disapproval, and all the young birds commence a loud ticking noise, like what would be produced by hundreds of huge "grandfather's clocks."

Notes.—A harsh "quark."

Nest.—A platform of sticks; eggs pale bluish-green. (2.00 x 1.40).

Range.—Breeds north to New Brunswick and Manitoba; winters in the Gulf States and southward.

YELLOW-CROWNED NIGHT HERON

203. *Nyctanassa violacea*. 23 in.

Like the last species, the head of this one is adorned with three long, rounded, white plumes; in life these plumes are rarely separated, but are nested together so that there appears to be but one. As dusk approaches, these birds sally out from their roosting or nesting places, and with slow, measured flaps, wing their way to their feeding grounds, which are usually fresh water bogs, teeming with animal and insect life. After dark the "quark" of Night Herons is frequently heard as the birds pass overhead, and they can very easily be decoyed by a crude imitation of their call. This species is principally confined to the South where it is found in heronries of its own kind, or in company with others.

Notes.—Like those of the Black-crowned Night Heron.

Nest.—A platform of sticks in trees, in swamps. 3 or 4 pale bluish-green eggs (2.00 x 1.40); May.

Range.—Breeds north to South Carolina and Southern Illinois; later may stray farther north.





CRANES, RAILS, ETC.—Order Paludicolæ

CRANES—Family Gruidæ

WHOOPING CRANE

204. *Grus americana*. 50 in.

Plumage white, with black primaries; the inner wing feathers greatly lengthened, making a flowing train. Head of adult, largely bare, carmine colored, and with a few black hair-like feathers; eye yellow; bill and legs black. Young birds are whitish, mixed with gray. These great birds are not uncommon on the prairies of interior America, where they frequent the edges of marshes and sloughs. They are very wary and their great height enables them to see anyone a long way off, above the marsh grass. They were formerly found on the South Atlantic coast, but are now extremely rare there.

Notes.—A loud whooping scream.

Nest.—On the ground, usually in marshes; it is a bulky mass of grass and weeds, with the hollowed top a foot or more above ground. The two eggs that they lay are brownish-buff, spotted with brown. (3.75 x 2.50); May, June.

LITTLE BROWN CRANE

205. *Grus canadensis*. 36 in.

Like the next and better known species, but smailer and browner, especially on the wings.

Range.—Breeds in the interior of Northern Canada; migrates, west of the Mississippi and east of the Rockies, to Mexico.

SANDHILL CRANE

206. *Grus mexicana*. 44 in.

Plumage entirely grayish with a few brownish feathers; bare skin on top of head, red. These cranes are locally distributed in the Gulf States, and in the interior north to Manitoba. Their food consists largely of grasshoppers, worms and lizards. Unlike herons, their young are born covered with down and can run about as soon as they appear. When flying, cranes carry their neck full outstretched.

Nest.—On the ground like that of the Whooping Crane.

Range.—Winters on the Gulf coast and in Florida; breeds north to Manitoba.



COURLANS—Family Aramidæ

LIMPKIN

207. *Aramus vociferus*. 27 in.

These singular birds are the connecting link between the cranes and the rails. They are rarely seen in flocks, usually living a secluded life in pairs. They are often known as the "crying bird," because of the peculiar wailing cries that they utter, both in daytime and after nightfall. They are great skulkers, and it is difficult to make them fly; when they do take wing, it is only to go a few rods before dropping into the shelter of the reeds again. They can run rapidly, having a peculiar mincing gait, that is said to have given them the name of Limpkin.

Notes.—A peculiar wailing "whee-ee-eu."

Nest.—A loosely constructed platform of sticks, leaves, grass and moss, located a few feet from the ground in tangled underbrush or vines. The 4 to 7 eggs are buffy white, blotched with brown (2.30 x 1.70); April, May.

Range.—Breeds and is resident in Southern Florida, and casually Texas.



RAILS, GALLINULES AND COOTS—Family Rallidæ
KING RAIL

208. *Rallus elegans*. 18 in.

Back handsomely patterned with black, olive-brown and gray; wing coverts reddish-brown; neck and breast, rich cinnamon-brown, brightest on the breast. Sides sharply barred with black and white. This species is the handsomest of the rails, and is the most distinctly and brightly marked. They are excellent runners and are very difficult to start from the marsh grass within which they are concealed. They are usually found in fresh water marshes, while the next species is most abundant in salt marshes; they are both often found in the same place and must be seen at close range to distinguish them.

Notes.—A loud “bup, bup, bup” repeated and ending in a roll. (Chapman).

Nest.—Of grass and weeds on the ground in marshes. The eggs are pale buff, spotted with reddish-brown (1.6 x 1.2); June.

Range.—Breeds from the Gulf coast north to Conn., Ont., and Minn. Winters in southern U. S.





CLAPPER RAIL

211. *Rallus crepitans*. 15 in.

General color above olive-grayish, with no strong black markings; breast pale brown; flanks barred with gray and white. This species is found almost exclusively in salt marshes, where they skulk about like rats. During exceptionally high tides, when their hiding places are covered, many of them are killed by negroes and white men for food; they can swim, but usually run across the marsh, making use of blades of grass, sticks or whatever trash may be in their course, as stepping stones.

Notes.—Loud and clacking like those of the King Rail.

Nest.—Of grasses on the ground in salt marshes; 6 to 14 buffy eggs, spotted with brown (1.70 x 1.20).

Range.—Salt marshes of the Atlantic coast, north to Mass. The following subspecies are darker and very locally distributed. 211a, Louisiana Clapper (*R. c. saturatus*), coast of La. 211b, Scott Clapper (*R. c. scotti*), Gulf coast of Fla. 211c, Wayne Clapper (*R. c. waynei*), east coast of Fla. to S. C.

VIRGINIA RAIL

212. *Rallus virginianus*. 9.5 in.

Coloration almost exactly like that of the King Rail, but the bird is much smaller. Like that species, this one prefers fresh water marshes. They have a great aversion to flying, and, like other rails, will trust to their legs for safety, should danger threaten; probably no other birds are as dexterous as the rails in threading their way through the close standing rushes. Although they do not have webbed feet, they can swim fairly well, and also dive, but they do so only when they are forced to. They look extremely awkward as they run over the trash on the marsh, their head and neck erect and extended, with their head rapidly turning from side to side as though looking for a place of safety.

Notes.—A guttural, rattling “cut-cut-cut-ee.”

Nest.—Of grasses, on the ground or in tufts of rushes; eggs creamy-white, specked with brown. (1.25 x .90); May, June.

Range.—Breeds in the northern half of the United States and southern Canada; winters in southern U. S.





CAROLINA RAIL; SORA

214. *Porzana carolina*. 8.5 in.

Adults with the face and throat black. Young with no black on the head. This species is not apt to be confused with any, except, possibly, the Virginia Rail, which is somewhat larger, and always has the breast conspicuously cinnamon color. These birds are very abundant in nearly their whole range, but they are so secretive in their habits that their presence is often not noticed. Unless disturbed, they pass the greater portion of the day in slumber, and do most of their feeding after dusk, when their confused, clucking notes are heard all over the marshes. All of the rails have this habit of feeding chiefly at night, perhaps through fear of enemies during the daytime, for they seem to be very timid birds.

Notes.—A rapid clucking, “kuk, kuk, kuk,” etc.

Nest.—A rude structure of grass and rushes on the ground in either salt or fresh marshes; 6 to 16 buff colored eggs with reddish brown specks.

Range.—Breeds in the northern half of the U. S. and northwards; winters in the southern half.

YELLOW RAIL

215. *Coturnicops noveboracensis*. 7 in.

This is a handsome bird, the entire plumage having a glossy lustre. The back is blackish, with all the feathers edged with white, while the head, neck and breast have a peculiar yellowish-brown shade.

Nest.—On the ground; made of rushes and grass woven and twisted together; the 6 to 12 eggs are rich buff color, speckled in a wreath about the large end, with reddish-brown; size 1.10 x .80; June.

Range.—Breeds in northern U. S. and southern Canada; winters in the southern states.

BLACK RAIL

216. *Creciscus jamaicensis*. 5 in.

Much smaller than any of our other rails; very dark.

Notes.—A peculiar, loud clicking sound.

Nest.—Of grass and rushes, well cupped to receive the 6 to 12 eggs; these are creamy white, speckled with reddish brown (1.03 x .75); June.

Range.—Breeds in the United States north to Mass., southern Minn. and Oregon. Winters in the West Indies and Central America.





PURPLE GALLINULE

218. *Isonornis martinicus*. 13 in.

Bill shorter and stouter than that of the rails, and with a hard shield at the base, that extends on the forehead to the top of the head. This species is beautifully colored with purplish-red and blue on the underparts, and greenish on the back and wings; legs yellow; bill carmine, tipped with yellow. The habits of the gallinules are practically the same as those of the rails. They inhabit marshes, where they creep cautiously but rapidly through the upright stalks, or run over the slimy surface, where none but birds with extremely long toes could get a foothold. Their powers of flight are weak, and they do not take wing unless they are cornered or wish to cross some stream.

Nest.—Woven of grasses and rushes, and placed either on the ground or attached to living rushes, usually over the water; their 5 to 10 eggs are rich cream color, spotted with reddish brown (1.60 x 1.15).

Range.—Breeds in eastern United States, north to North Carolina and southern Illinois; winters south of the U. S.

FLORIDA GALLINULE

219. *Gallinula galeata*. 13 in.

Bill and crown plate, red, tipped with yellow; legs greenish with a red ring around the top; plumage gray changing to blackish on the head and neck. Florida Gallinules are very noisy, especially during the mating and breeding season, and marshes in the south, where they breed by hundreds, fairly ring with their cries, chuckles and squawks. They have an almost endless variety of notes but all of them are harsh and explosive. At times they appear to be stupid, and allow anyone to approach in a boat, near enough to touch them with an oar. When frightened, and with no protecting rushes to conceal them, they will rush off over the grass and water, with much spattering and squawking.

Nest.—Usually fastened in the marsh grass or flags above water; made of rushes and grass; the eggs are similar to those of the Purple Gallinule but are duller.

Range.—Breeds north to southern New England, Ontario, Minnesota and Oregon; winters in southern U. S.





AMERICAN COOT

221. *Fulica americana*. 15 in.

Bill and frontal shield as in the gallinules, but the bill is whitish with a blackish ring near the tip; each individual toe is furnished with a large scalloped web; otherwise their plumage is grayish like that of the Florida Gallinule. Coots are, locally, very abundant throughout temperate North America in summer. Like gallinules, they inhabit reedy pools, sluggish streams and boggy marshes, where they are at least safe from human pursuit. They conceal themselves among the reeds, so as to escape observation, taking wing only when they are obliged to. They are expert swimmers, and can dive and swim for long distances under water; in this respect they have a decided advantage over the rails and gallinules.

Nest.—Like that of the gallinules; 6 to 15 grayish eggs, finely speckled with black (1.80 x 1.30). May, June.

Range.—Breeds throughout temperate America, rare on the North Atlantic coast; winters in southern U. S.

SHORE BIRDS—Order Limicolæ
PHALAROPES—Family Phalaropodidæ

RED PHALAROPE

222. *Phalaropus fulicarius*. 8 in.

Bill heavier than any of the other phalaropes; feet lobate-webbed. Adults in summer have the entire underparts reddish brown; side of head white; upper parts gray, white and black. In winter, head and underparts are white; back gray. Phalaropes differ from any other of our birds, in that the female is the larger and brighter plumaged bird, and the duties of incubation are largely or chiefly performed by the male bird. These phalaropes are very rarely seen in the United States in their breeding plumage; when they come in the Fall, nearly all have changed to their dull winter dress, and they keep this until after they leave us in the Spring.

Nest.—A hollow in the ground, lined with a few grasses; eggs greenish buff, spotted with blackish.

Range.—Breeds in the Arctic regions; winters south to New York, Calif., and Ohio, chiefly on the sea coasts.





NORTHERN PHALAROPE

223. *Lobipes lobatus*. 7.5 in.

Bill short and slender. Female in summer with reddish-brown breast; gray upper parts mixed with white and buff; throat and belly, white. Male, similar but duller colored. In winter, the upper parts are gray mixed with white, and the underparts are pure white. This is a maritime species that nests in the far north, and appears on our coast only for a short time during migrations. Like the last, they are expert swimmers and pass most of their time, when not breeding, upon the surface of the water, where they can outride the most severe storms in safety. They feed upon minute insects that they secure from beds of floating kelp.

Notes.—A sharp, rapidly repeated, metallic “tweet.”

Nest.—A grass-lined hollow in the ground; eggs greenish-buff, spotted with black (1.30 x .90).

Range.—Breeds from Labrador, Hudson Bay and Alaska northward. Winters south of the United States, migrating along both coasts, and to some extent in the interior.

WILSON PHALAROPE

224. *Steganopus tricolor*. 9 in.

Bill long and slender. Female in summer with a black line through eye, shading into a broad stripe of rich chestnut on the sides of the neck. Male much duller colored and slightly smaller. This phalarope is one of the most beautiful of all our shore birds, and is the most southerly distributed of the phalaropes. It is a bird of the interior, and is only rarely or casually met with on the sea coasts. It commonly travels about in small companies instead of large flocks as the other two species do, and is not as often seen on the water, although it can swim well.

Notes.—Usually silent, but has a low quack.

Nest.—Of grasses, on the ground, usually concealed in a tuft of grass, and near the border of a marsh or pond; the 3 or 4 eggs are brownish or greenish-buff with black markings (1.30 x .90); June.

Range.—Breeds chiefly in the interior, from Iowa and California, north to Hudson Bay; winters south of the U. S.





AVOCETS AND STILTS—Family *Recurvirostridae* AMERICAN AVOCET

225. *Recurvirostra americana*. 17 in.

Bill slender and recurved; feet webbed; feathers on the underparts very thick and duck-like, being impervious to water. In summer, the head and neck are pale cinnamon color; young birds and winter adults have the head and neck white, but the rest of the plumage is the same as in summer. These interesting waders are very abundant in some localities on the western plains. During the breeding season, if not molested, they become very tame; at other times they are quite wary. Their food consists of water insects and small crustacea, which they secure in a novel manner. Wading along in shallow water, with their head immersed, they keep their bill moving from side to side through the soft mud.

Nest.—Of grass, on the ground; the eggs are brownish-buff spotted with black (1.90 x 1.30); May, June.

Range.—Breeds locally from Texas and southern California northward to Saskatchewan; rare or casual east of the Miss. and on the Atlantic coast.

BLACK-NECKED STILT

226. *Himantopus mexicanus*. 15 in.

Legs extremely long, and bright red; neck and bill moderately long and slender. Male black and white as shown; female and young with the back brownish. These very long-legged creatures are found in suitable places west of the Mississippi River, and are especially abundant in southern California. Stilts are poor swimmers, but habitually feed in comparatively deep water, that is up to their bodies, their whole head, neck and upper parts of the body often being submerged while thus engaged. They are strong and swift on the wing, twisting as they fly, so as to alternately show their black upper parts, then the white surfaces beneath; this is a habit that is common to several varieties of shore birds.

Nest.—On the ground as usual; eggs greenish-buff, spotted with black (1.80 x 1.25); May, June.

Range.—Breeds in the Gulf states and southern California, north to Dakota; winters south of U. S., except in southern California. Rare on the Atlantic coast.





SNIPES, SANDPIPERS, ETC.—Family Scolopacidæ

AMERICAN WOODCOCK

228. *Philohela minor*. 11 in.

Bill very long; eyes very large and located near the top of the head; form heavy; legs short; plumage much mottled with black, brown and gray. These peculiar birds are very well known throughout their range, to gunners and sportsmen, who have been the means of almost completely exterminating them in some localities. They are found in runs along the edges of brooks, where the mud is soft. Their food is of worms, insects and their larvæ, which they get from the ground by boring with their long bills. Their flight is very rapid, and when startled they double and twist in their haste to get away, their three narrow outer wing feathers producing a peculiar whistling sound.

Notes.—A low peep, and a twittering.

Nest.—Simply a hollow amid the surrounding leaves; the 4 eggs are buff, with yellowish-brown spots (1.50 x 1.15); April, May.

Range.—Eastern N. A., breeding chiefly from Ohio and New Jersey, northward; winters in southern U. S.

WILSON SNIPE

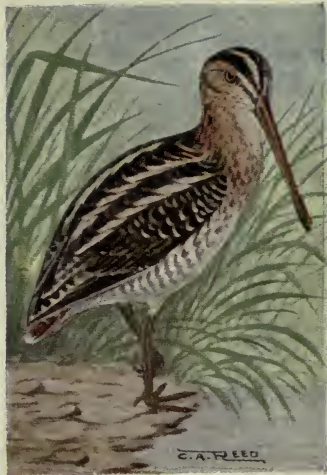
230. *Gallinago delicata*. 11 in.

Bill very long, but not as heavy as that of the Woodcock; eyes not abnormally large; head striped with black and whitish; back handsomely variegated with black, brown and white; sides barred with black and white. The Snipe frequents more open country than the Woodcock, being found in marshes or along open brooks. Like the Woodcock, they often lie still and trust to their colors to prevent their being seen, but if they are observed, and they are always on the alert, they instantly take wing and pursue a zigzag course out of sight. Like the last species they procure their food by boring, the tip of the bill being flexible, so they can grasp their food when they feel it.

Notes.—A sharp, harsh whistle as they take wing.

Nest.—Depressions in the grassy edges of ponds or marshes; eggs olive gray, marked with blackish. (1.50 x 1.10); May, June.

Range.—Breeds from the northern tier of states northward. Winters in southern U. S.



DOWITCHER

231. *Macrorhamphus griseus*. 10.5 in.

Bill very long like that of the Snipe. Adults in summer are reddish-brown below, more or less speckled with black on the breast and barred with black on the sides; above mottled with brown and black, lighter, or even white, on the rump. In winter, they are gray above and white below, the breast being tinged with gray and streaked with dusty. Dowitchers are known as Red-breasted Snipe and as Robin Snipe by gunners, with whom they are great favorites. They usually travel in flocks, and often with flocks of other species. Their notes are a series of musical whistles, easily imitated, and the birds are easily attracted thereby.

Nest.—As usual on the ground; eggs greenish-buff, spotted.

Range.—Eastern N. A., breeding in the Arctic regions; winters south of the U. S.

232. LONG-BILLED DOWITCHER (*M. scolopaceus*), is found in western N. A. The bill is supposed to be longer, but the plumage is identical and the birds probably are.



STILT SANDPIPER

233. *Micropalama himantopus*. 8.5 in.

Bill slender and only moderately long. In summer, the entire underparts are rusty-white, barred with blackish; ear-coverts and top of head browner; back mixed brown and black. In winter, they are gray above and whitish below, with the breast streaked with dusty. They seem to be one of the least abundant of our shore birds, single individuals being found in flocks of other species, rather than in flocks of themselves. They are usually more shy than the birds with which they are associated, perhaps because they lack companionship of their own kind. They have a musical whistle, not distinctive from that of many others of our small shore birds.

Nest.—The three or four eggs are laid in a hollow in the ground, usually in the grass back from the beach; eggs grayish, blotched with various shades of brown.

Range.—Eastern North America, breeding in the Arctic regions and migrating through the United States to South America, chiefly on the Atlantic coast.



KNOT

234. *Tringa canutus*. 10.5 in.



Bill moderately long and quite stout; form more robust than most of our shore birds. Adults in summer, mixed brownish and gray, above, and uniform reddish-brown below. In winter, plain gray above and white below; young similar but with feathers on the back edged with white. It is an abundant species on the Atlantic coast during migrations, and is known by various names such as Red-breasted Sandpiper and Robin Snipe, when in summer dress, and as Gray-back when in winter plumage. It is usually found on the ocean beach, where it follows the waves as they recede, picking up numerous insects left there, and retreating before the next wave.

Notes.—An ordinary Sandpiper whistle.

Nest.—Not positively known, but a supposed egg obtained by Lieutenant Greely in the vicinity of Fort Conger was pea-green in color, with small brown spots. (1.10 x 1.00).

Range.—Breeds in the Arctic regions; migrates chiefly on the Atlantic coast, to South America.

PURPLE SANDPIPER

235. *Arquatella maritima*. 9 in.

Upper parts blackish, margined with buffy; breast and sides slaty purple. In winter, blackish, without the rusty edging to the feathers. These dark colored little sandpipers prefer bold rocky coasts.

Notes.—A loud, shrill whistle.

Nest.—A hollow in the ground, among grass and weeds, lined with a few grasses; eggs grayish buff, handsomely splashed with various shades of brown.

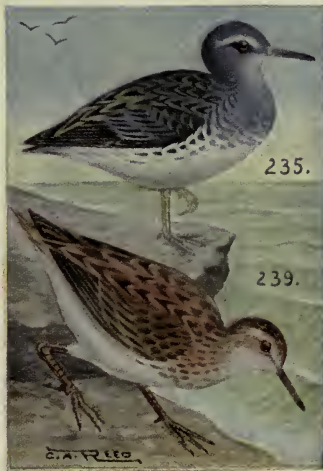
Range.—Breeds from northern Labrador and the mouth of Hudson Bay northward; winters south to Long Island Sound and the Great Lakes.

PECTORAL SANDPIPER

239. *Pisobia maculata*. 9 in.

Crown and back blackish, strongly edged with reddish-brown; an ashy-gray wash on the breast, with numerous streaks of blackish. Well known and called by a great variety of names, of which Jack Snipe and Grass Snipe are probably the most common.

Range.—Breeds in the Arctic regions; migrates through the U. S. to South America.





WHITE-RUMPED SANDPIPER

240. *Pisobia fuscicollis*. 7.5 in.

Upper tail coverts white; below white, but with the throat and breast streaked with dusky, these markings extending on the sides to the tail.

Notes.—Musical whistles in no way different from those of the Least Sandpiper.

Nest.—On the ground, in grass back of beaches; eggs gray, profusely blotched with blackish brown.

Range.—Eastern N. A., breeding from Labrador and Hudson Bay northward; migrates through the U. S. east of the Rockies, to southern South America.

BAIRD SANDPIPER

241. *Pisobia bairdi*. 7.5 in.

Of the same size, form and general coloration as the White-rumped Sandpiper, but the upper tail-coverts are blackish, and the breast is only very faintly streaked.

Range.—Breeds in the Arctic regions, and migrates chiefly through the interior, but to some extent on the coast, south to southern South America.

LEAST SANDPIPER

242. *Pisobia minutilla*. 6 in.

Smallest of our sandpipers. Upperparts blackish, edged with bright chestnut; breast and sides ashy-gray, conspicuously streaked with dusky.

Notes.—A musical whistle, "peet-weet."

Nest.—A grass lined hollow: eggs grayish, heavily blotched with blackish brown (1.15 x .80).

Range.—Breeds from Nova Scotia and northern British Columbia northward; winters from the Gulf States and California southward.

SEMIPALMATED SANDPIPER

246. *Ereunetes pusillus*. 6.25 in.

Feet with small webs between the toes at their base. Similar in size and form to the Least Sandpiper, but the upper parts are not as bright rusty, and the breast is only faintly streaked with dusky.

Range.—Breeds from Labrador northward.

247. WESTERN SANDPIPER (*E. mauri*) is very similar; more rusty above, with stronger markings.



RED-BACKED SANDPIPER

243. *Pelidna alpina sakhalina*. 8 in.



Bill slightly decurved and rather stout. Adults in summer, with the upper parts largely bright rusty; belly black; head, throat, breast and sides strongly streaked with black. In winter, dull brownish-gray above and white below, with the breast washed with grayish and slightly streaked with dusky. Found in large flocks on both the Atlantic and Pacific coasts, during migrations, but rarely in the interior. Their flight is very rapid and performed in very compact flocks that act as if governed by one impulse. They are very active, feeding for a short time in one place, then flying to another. They are found most abundantly on sand bars and mud flats, rather than on the open beach.

Nest.—Usually on dry, grassy knolls, a hollow in the earth being lined with a few dried grasses. Eggs pale greenish or brownish gray, spotted with blackish. (1.40 x 1.00); June.

Range.—Breeds in the Arctic regions, and winters from the Gulf coast and southern California, southward.

SANDERLING

248. *Calidris leucophæa*. 8 in.

Toes short and stout; no hind toe. Adults in summer, variegated above with bright reddish-brown and black; below white, the breast being strongly washed with rusty and spotted with black. In winter, plain grayish above and white below; head white, except the crown; young birds are like winter adults but have the back with some blackish. In the interior this species is found on the edges of lakes and rivers. On the coast, it is one of the boldest of the shore birds, feeding on the edge of the outer beach, often under the combing crest of the incoming waves, retreating just as the wave breaks and is dashed to foam on the beach. They are usually wary and will not allow a close approach.

Nest.—On the ground; eggs greenish-buff, spotted with black.

Range.—Breeds in the Arctic regions; winters south to Patagonia, migrating on both coasts and to a less extent in the interior.



MARBLED GODWIT

249. *Limosa fedoa*. 19 in.



Bill long and slightly recurved. Back, wings and tail, rufous, barred with black; rump usually white, with black bars; underparts pale rufous with narrow bars; head grayish, with black streaks on the crown and sides. Young similar, but whiter below and with few or no bars. These large waders are found in moderately large flocks both in the interior and on the coast in the fall. They frequent salt marshes on the coast, and the borders of ponds and lakes in the interior. They are much hunted and are consequently very wary, usually taking wing as soon as anyone appears in sight. They are readily decoyed, and thousands perish annually at the hands of sportsmen. They are known by many names, Marlin and Straight-bill Curlew probably being the most commonly used.

Range.—Breeds in the interior from Iowa north to Saskatchewan. Winters south of the U. S., migrating along both coasts as well as in the interior.

HUDSONIAN GODWIT

251. *Limosa hæmastica*. 15 in.

Bill slightly recurved; tail black at the end, and white at the base, not barred as that of the last species always is. Above blackish, with rusty margins; below deep reddish-chestnut, barred, chiefly on the sides, with black. In winter, similar but duller both above and below, with only traces of bars on the flanks, and with the breast more or less streaked. This species is more abundant on the Atlantic coast during migrations than the last. It is most often known as the Ring-tailed Marlin, owing to a very strong contrast between the black tail, white rump and dark upper parts as the bird flies. They are usually found in the marshes back of the ocean beach, and, owing to their large size, can be seen for a long distance.

Notes.—A loud, shrill whistle.

Nest.—A grass lined hollow in marshes; eggs brownish buff, blotched with blackish (2.20 x 1.40).

Range.—Breeds in the Arctic regions; winters south of the United States, migrating chiefly on the Atlantic coast, but to some extent down the Miss. Valley.





GREATER YELLOW-LEGS

254. *Totanus melanoleucus*. 14 in.

Bill long and rather slender; legs long and yellow or greenish yellow. Head and neck streaked with gray and white; back black margined with white; rump white; tail barred black and white; underparts white, washed with gray on the breast, and with numerous black arrow-head markings. In winter, similar, but with no black markings below.

Notes.—A loud three-syllabled whistle.

Range.—Breeds from northern portion of Miss. Valley in the U. S. northward; winters from the Gulf States and southern California southward.

LESSER YELLOW-LEGS

255. *Totanus flavipes*. 10.5 in.

Very similar in form, color and markings to the large Yellow-legs, but smaller in every way.

Range.—Breeds in the interior of Canada, north to the Arctic Ocean, and possibly in northern Miss. Valley. Winters from the Gulf States southward, migrating in the interior and along the Atlantic coast.

SOLITARY SANDPIPER

256. *Helodromas solitarius*. 8.5 in.

Above olive-grayish, streaked on the head and neck, and sharply speckled on the back and wings, with white; tail sharply barred with black and white; below white, streaked on the breast and barred on the sides with gray and white. In winter, with fewer white markings on the back. It is often confused with the Spotted Sandpiper that frequents the same places, but should be easily identified when it flies by its barred tail and linings of the wings. They have the habit, common to nearly all the shore birds, of elevating their wings after alighting, and then carefully folding them on the back.

Nest.—For a long time their eggs were unknown, but are now known to be laid in the nests of other land birds, at low elevations in trees or bushes near water. They have been found in Manitoba in a Waxwing's nest. Eggs bluish-green with blackish-brown blotches.

Range.—Breeds from Northern U. S. northward; winters south of the U. S.



WILLET

258. *Catophophorus semipalmatus*. 16 in.

Bill long and quite stout; feet with small webs between the bases of the toes. Upper parts brownish-gray, more or less speckled with black; most of secondaries and bases of primaries white, very conspicuous in flight, and easily distinguishing it from any other wader of its size. Usually found in small flocks along the edges of marshes; they are said to be quite shy except during nesting season, and to be difficult to decoy. After breeding they wander northward and are often seen in flocks of other migrating species. When standing on the beach they often indulge in curious antics, bowing and flirting their tails.

Notes.—A loud, shrill whistle, “pill-will-willet.”

Nest.—On the ground; eggs buffy, blotched with brown.

Range.—Breeds from the Gulf to New Jersey; later strays to Maine. 258a, Western Willet (*S. s. inornata*) is supposed to be slightly larger and paler. Breeds from Texas to Manitoba; winters along the Gulf coast.



BARTRAMIAN SANDPIPER

261. *Bartramia longicauda*. 12 in.

Upper parts blackish with greenish-brown edgings; tail brownish with black bars, and white tips to the outer feathers. Underparts white, with prominent inverted, black arrow head markings on the breast and along the sides. These birds are more often known as Upland Plovers, because they are found on dry hill-sides, rarely near water. West of the Miss. they are said to occur in large flocks in the Fall, but in the East, half a dozen or so would be considered a fair sized flock. They feed upon small grasshoppers and other small insects, sometimes chasing them for a considerable distance before securing them. They are shy and usually take wing as soon as they see you.

Nest.—Of grasses, usually concealed in clumps of grass or weeds in the middle of fields; eggs buffy, blotched with yellowish-brown (1.75 x 1.25); May, June.

Range.—Breeds locally in the northern half of the United States and Southern Canada; winters south of





BUFF-BREASTED SANDPIPER

262. *Tryngites subruficollis*. 8 in.

Bill short and slender. General color above, blackish-brown margined with tawny; underparts buffy, with a few black specks on the sides of the breast. Primaries blackish-brown on the outer webs, the inner webs, as well as those of the secondaries, being whitish, peculiarly speckled with black; these markings are characteristic and are found on no other of our shore birds. It seems to be most nearly related to the last species, and like that, is often found on hillsides at a distance from water.

Notes.—A low, weak “tweet.”

Nest.—A scantily lined depression on the ground; the four eggs are grayish-buff, boldly blotched with rich chestnut-brown and black (1.45 x 1.05); June.

Range.—Breeds in Arctic America; winters in South America, migrating chiefly through the interior of the United States, but to a less degree on the coast.

SPOTTED SANDPIPER

263. *Actitis macularia*. 7.5 in.

Below white, with round blackish spots, heaviest on the breast and sides; above olive-brown or gray, with faint black bars; a narrow black line from the bill through the eye to the ears. Young entirely white below, with the breast faintly tinged with gray. These birds are abundant and breed locally throughout the United States and the greater part of Canada. One or more pairs will usually be found nesting in the fields about all small ponds, or among the weeds that grow about edges of pools and lakes. They have a peculiar habit of "teetering," whether standing still or while feeding on the banks of streams or ponds; other birds do this but not nearly as persistently as Spotted Sandpipers.

Notes.—A clear "peet-weet;" also a single melodious whistle.

Nest.—On the ground in fields or near the edges of pools or streams; eggs buffy, boldly spotted.

Range.—Breeds from the Gulf to Hudson Bay; winters south of the U. S.



LONG-BILLED CURLEW

264. *Numenius americanus*. 23 in.

Bill much decurved and very long (4 to 8 in.), the longest of any of our shore birds. Plumage variegated with rufous and blackish above; bright buffy or rufous below, streaked on neck and breast, and barred on the sides with blackish. "Sickle-bills," as these birds are often called, are the largest of our shore birds. They are very conspicuous either when flying or walking on the marshes or sandbars, their size appearing gigantic when they are in a flock of smaller plover, as sometimes happens. They fly in compact flocks, evidently led by one individual, for they wheel and circle in perfect unison, sailing up in the wind on outspread wings, when about to alight.

Notes.—A flute-like whistle, "ker-loo."

Nest.—On the ground; eggs greenish-buff, with small black spots over the whole surface (2.50 x 1.80).

Range.—Breeds in the Upper Miss. Valley, north to Manitoba; winters in the Gulf States, and southward; formerly bred on the South Atlantic coast: strays to New England and New Brunswick in the fall.

HUDSONIAN CURLEW

265. *Numenius hudsonicus*. 17 in.

Darker brown above, than the Sickle-bill; crown broadly striped with blackish and buff; underparts grayish, streaked on the breast and barred on the sides with blackish. This and the succeeding species are summer inhabitants of the Arctic regions, being found within our borders only for a short time in the Fall and Spring. It is found in fresh and salt water marshes, as well as on mud-flats and on sandy beaches of the seashore. They are very unsuspicious and are easily stalked, or decoy very easily, coming to wooden caricatures of themselves stuck up in the mud, or to crude imitations of their whistles; consequently large numbers of them are shot and they are becoming scarce.

Notes.—Similar to that of the last.

Nest.—Hollows in the ground, lined with grasses and weeds; eggs buffy, blotched with brownish-black (2.25 x 1.60).

Range.—Breeds in the Arctic regions. Winters south of the United States, migrating both on the coast and in the interior.





ESKIMO CURLEW

266. *Numenius borealis*. 13.5 in. .

Bill comparatively short (about 2 in.) and little curved. Above, marked similarly to the last; below white or pale buff, often thickly covered on the breast and sides with streaks and arrow head markings of blackish. Primaries and most of the secondaries plain brownish-black, without the variegation of the last species. A few years ago this was considered the most abundant of the curlews, but so persistently have they been hunted that they are now practically exterminated. When it comes to looking after their safety, curlews are, perhaps, the most stupid of the shore birds for they do not seem to realize the dangerous character of mankind in general, and they have paid the penalty. I trust that all sportsmen will refrain from shooting these birds.

Nest.—Like that of the Hudsonian; eggs similar but smaller.

Range.—Eastern N. A., breeding in the Arctic regions and migrating through the Plains, Mississippi Valley, and to a less extent on the Atlantic coast, to South America. Very rare now anywhere.

PLOVERS—Family Charadriidæ

BLACK-BELLIED PLOVER

270. *Squatarola squatarola*. 11.5 in.

Hind toe very small. Bill short and stout. Adults in summer with the back, wings and tail barred or marked with black and white; top of head and nape white, except for a few black markings on the crown; face, throat, breast and fore part of belly, black. In winter, brownish-black, somewhat mottled, above; below dull white. Young similar to winter adults, but the back is spotted with yellowish-white. While these handsome plover migrate to some extent, and sometimes in large flocks, through the interior of the United States, they are chiefly and most abundantly found on the coast. They are the plover most eagerly sought by gunners.

Call.—A plaintive whistle, "ter-lee."

Nest.—Grass-lined hollows in marshes or dry land, back from the beach; eggs greenish-buff, spotted with black.

Range.—Breeds in the Arctic regions; winters in South America, migrating through the U. S. in Sept. and May.



AMERICAN GOLDEN PLOVER

272. *Charadrius dominicus*. 10.5 in.



No hind toe. Back and tail mottled with black and yellow; below, more or less entirely black to the tail. Young and winter adults, more or less spotted with yellow and blackish-brown above, and grayish-white below, with indistinct streaks on the breast. Often confused with the last species in this plumage, but is smaller, bill smaller and more slender, and the axillars, or feathers nearest the body, under the wings, are gray while those of the Black-bellied Plover are black. This species is now regarded as rare on the North Atlantic coast during migrations, while in the interior it is more abundant than the last species. They do not seem to be as suspicious as the Black-bellies, and a flock will often allow a close approach, even when they see you.

Nest.—Nesting habits like those of the last, and other shore birds; eggs slightly smaller (1.90 x 1.30).

Range.—Breeds in the Arctic regions; winters south to South America.

KILLDEER

273. *Oxyechus vociferus*. 10 in.

No hind toe. Rump and base of tail reddish-brown; breast crossed by two black bands. Like the Spotted Sandpiper, this bird is locally and abundantly distributed throughout the United States and Southern Canada; it is, however, rare in New England, where it is sometimes found in the Fall. It frequents meadows, fields and ploughed ground, where it feeds upon insects, and around the edges of pools and streams where it gets small shellfish and larvæ. As usual, they will attempt to lead an intruder away from their nest by feigning lameness.

Notes.—A loud, noisy and incessant “killdee.”

Nest.—A slight hollow in the ground, usually in a clump of weeds; sometimes lined and sometimes not; the four eggs are greenish-buff, heavily blotched with black.

Range.—Breeds locally throughout United States, except New England, and southern Canada; winters in southern U. S.





SEMIPALMATED PLOVER

274. *Aegialitis semipalmata*. 7 in.

Small web between the bases of the two outer toes. Single broad, black band across the breast; black line from base of bill to eye. They are very abundant on our seacoast in Fall, both in flocks composed entirely of their own kind, and also with Least and Semipalmated Sandpipers. They usually keep on the inner side of sandbars or muddy flats bordering marshes, rather than on the open ocean beach. It is also found in smaller flocks, about ponds and marshes in the interior of the country. They are usually unsuspicious and will allow a close approach, or if you are still, will run by within a very few feet.

Notes.—A clear double whistle, usually uttered when on the wing or when alarmed. They decoy to an imitation of it.

Nest.—On the ground; eggs buffy, sparsely specked with black. (1.30 x .90); June.

Range.—Breeds from the Gulf of St. Lawrence northward; winters from the Gulf States southward.

PIPING PLOVER

277. *Ægialitis meloda*. 7 in.

Very pale above; no black in front of eye; black patch on each side of breast. Young similar, but the black replaced by grayish, as is the case with the last species. This species, apparently, never could be classed as abundant and of late years, it is becoming rather rare along our Atlantic coast; this is probably more due to the building of summer resorts and homes along their former breeding grounds than to hunters. They are rather more shy than the last species, but will usually attempt to escape by running along the beach or by hiding, rather than by flight. Owing to their light colors it is very difficult to see them at any distance.

Notes.—A two-syllabled piping whistle.

Nest.—On the ground; eggs buff with fine black specks.

Range.—Breeds on the coast from Va. to Newfoundland and in the Mississippi Valley.





278.

280.

SNOWY PLOVER

278. *Egialitis nivosus*. 6.5 in.

Very small and very pale colored. Small black patch on either side of the breast, on ear coverts, and on crown. Bill more slender but longer than that of the Piping Plover.

Notes.—Low, mournful, piping whistles.

Range.—United States chiefly west of the Rockies, east to Kansas and north to Dakota.

WILSON PLOVER

280. *Ochthodromus wilsonius*. 7.5 in.

Bill large and heavy for birds of this genus. A black band across the neck, not extending to the back of the neck; dark line between eye and bill.

Notes.—A “mixture of whistle and chirp,” very different from that of allied plovers. (Elliott).

Nest.—A shallow hollow in the sand, sometimes concealed by short beach grass; eggs grayish, spotted and scratched with blackish brown (1.25 x .95).

Range.—Breeds on the Gulf and South Atlantic coasts north to Virginia; later may stray to Maine.

MOUNTAIN PLOVER

281. *Podasocys montanus*. 9 in.

No black on breast or sides, but with black band on top of head and a black line from bill to eye. Above grayish-brown; below buffy across the breast, white elsewhere. Mountain or Prairie Plover, as they are often and better called, are abundant on the western prairies. Like the Bartramian Sandpiper, they do not frequent the vicinity of water, but live and get their food in the dry grass-covered districts. They are not at all shy where they are not hunted. Like all the family, they are very fleet on foot, and may often be seen chasing grasshoppers or other active insects. Their flight is very rapid, often devious and usually at a low elevation.

Notes.—A single, low, musical whistle.

Nest.—A depression in the ground, anywhere on the prairie. Eggs brownish-gray, blotched with blackish.

Range.—West of the Mississippi River, breeding north to Dakota. Winters from Southwestern United States southward.





TURNSTONE

283. *Arenaria interpres*. 9.75 in.

Very similar to the next, which is the one figured, but slightly larger, and with black prevailing in the upperparts. This is the Old World species, found in America only in Labrador and Alaska.

RUDDY TURNSTONE

283.1. *Arenaria interpres morinella*. 9.5 in.

Bill short and stout, the upper mandible being straight, so that the bill has an upturned appearance. Legs reddish on adult birds and orange on young.

Known by a great many names, referring to its peculiarly pied appearance:—Calico-bird, Checkered-snip, etc. An abundant species usually found on pebbled beaches.

Notes.—One or two clear whistles.

Nest.—A scantily lined hollow; eggs grayish, beautifully marbled with brown, lilac and blackish.

Range.—Breeds in the Arctic regions; winters in Southern South America, migrating on both coasts.

AMERICAN OYSTER-CATCHER

286. *Hæmatopus palliatus*. 19 in.

Bill very long, heavy, compressed, and thin and chisel-like at the tip. Bill and eye, red; legs flesh color. These large, awkward looking birds are not scarce on the South Atlantic coast, where they are met with in pairs or small companies. They run with great swiftness, or walk sedately along the beaches and marshes gathering insects and fiddler crabs, of which they are very fond. They are said to have got their name from the habit of eating oysters when they found them with the shell open, a practice that would be extremely hazardous for them to undertake, as these shellfish close their two valves very quickly and would be apt to catch the bird. Owing to their large size they are frequently shot at and, consequently, are usually shy.

Nest.—A depression in the sand; the two or three eggs are buffy, spotted with blackish-brown (2.20 x 1.50); May.

Range.—Breeds on the coast north to Virginia; later may stray to Nova Scotia. Winters south of the U. S.





MEXICAN JACANA

Jacana spinosa. 8 in.

A very peculiar species. Bill plover-like; at the base, terminating in a leaf-like sheaf that covers the forehead; a hard spur on the shoulder of each wing; legs and toes extremely long, the toenails being abnormally so, the hind nail often being an inch and a half long. Young very different from the adult.—Grayish-brown above, with wings greenish-yellow as in adult; below whitish, darker across the breast and on the sides; a light line above the eye. Jacanas are inhabitants of marshy, muddy pools and ponds, where they can easily run over the surface, their long toes getting a good foothold on the floating aquatic plants. They are said to be very pugnacious in defence of their young, and also to fight among themselves during the mating season.

Nest.—Nests made of weeds and trash, on little floating islands or lily pads. 3 to 5 olive colored eggs, curiously scrawled with black. (1.20 x .95); May.

Range.—Is found and breeds within our borders only in Southern Texas.

GROUSE, PARTRIDGES, ETC.—Order Gallinæ

Family Odontophoridae

BOB-WHITE; QUAIL; VIRGINIA PARTRIDGE

289. *Colinus virginianus*. 10 in.

Male with white throat, bordered with black; female with a yellowish-brown throat, and line above eye. One of the most popular "game birds," so popular that it is exterminated in New England, and birds imported from the west are unable to regain the lost foothold. Found in stubble and low brush, where they hide until almost stepped upon. They feed upon insects and grain.

Notes.—A clear whistled "bob-white" and a series of low, clear whistles when in flocks.

Nest.—Of grass at the end of tunnel in tall grass bordering fields; 8 to 16 white eggs (1.20 x .95); May.

Range.—Resident east of the Rockies, north to Minn. and Ontario. 289a, Fla. Bob-white (*C. v. floridanus*), found in southern Florida is extremely dark (shown on plate). 289b, Texan Bob-white (*C. v. texanus*) is paler with black areas wider.





SCALED PARTRIDGE

Callipepla squamata. 10 in.

With a whitish or buffy-white crest; plumage bluish-gray, with darker edges giving the bird the appearance of being covered with scales. The female is more brownish, but is marked the same as the male. These birds are locally abundant in arid, cactus-covered deserts, often at a distance from water, and frequently in company with Gambel Partridge.

Nest.—8 to 15 eggs are laid in some hollow under a low bush or cactus; they are creamy-white, dotted with minute specks of pale brown. (1.25 x .95); April, May.

Range.—Mexico north to Central and Western Texas, New Mexico and Arizona.

293a. Chestnut-bellied Scaled Partridge (*C. s. castanogastris*), is more richly colored and has a chestnut patch on the middle of the belly. It is found in southern Texas and northeastern Mexico.

GAMBEL PARTRIDGE

295. *Lophortyx gambelii*. 10 in.

Head with an elegant recurved crest of six or seven feathers; normally these are carried in one packet so that there appears to be but one feather, but when excited, or during the mating season, they may separate the feathers, or sometimes curve them forward so as to touch the bill. Hindhead and sides chestnut, throat and middle of belly black. Female with the throat light and hindhead gray; crest small; no black on belly. An abundant species both in mountains, valleys or deserts, near or remote from water. Habits like those of the eastern Bob-white, but instead of taking wing, they will generally run.

Nest.—Eggs laid on the ground under any suitable cover; creamy-white, handsomely blotched with brown.

Range.—Resident in western Texas, New Mexico and Arizona, north to southern Utah and Nevada.



MEARNS OR MASSENA PARTRIDGE

296. *Cyrtonyx montezumæ mearnsi*. 9 in.

Bill very stout and compressed. Crest large, puffy and flat. Markings on the male very grotesque and clownish; general color of the female, pinkish brown with streaks of black, and white specks, below, and barred and streaked above. These strange birds are very local in their distribution in the southwest, rare in some localities and occurring in quite large flocks in others. They are so confiding in their disposition, that this, in connection with their clownish plumage, has given them the name of "Fool" Quail. They frequent dry deserts, valleys, or mountains up to an elevation of at least 8,000 feet. When startled, they often squat down, and can almost be caught in the hand, but when they do fly, their flight is very rapid, and accompanied with a peculiar clucking noise.

Nest.—A depression in the ground, lined with grasses, and concealed in clumps of weeds or grass. Their eggs, like those of other partridges, are numerous, pure white, and not as sharply pointed as those of the Bob-white.

Range.—Western Texas, New Mexico and Arizona.



DUSKY GROUSE

297. *Dendragapus obscurus*. 20 in.

Plumage gray, white and black, with a few rusty markings on the back; wide gray band on tip of tail. Female smaller, browner and more barred above. These large grouse are found on side hills or in gulches, usually not far from water. Like our common Ruffed Grouse, during mating season, the males of this species strut about with tail fully spread over the back, and head thrown back until it nearly touches the tail. At this season they are very pugnacious and the woods will resound with their challenging "toots,"—loud and hollow sounds with a ventriloquial effect.

Nest.—Eggs laid on ground in woods, usually under fallen logs or at the bases of trees; buffy, sparsely spotted with brown. (2.00 x 1.40); May, June.

Range.—Rocky Mts., from Mexico to Montana and east to South Dakota. 297b., Richardson Grouse (*D. o. richardsonii*), is found on the eastern slopes of the Rockies, north to British America. Little or no band on the tail.





HUDSONIAN SPRUCE GROUSE

298. *Canachites canadensis*. 15 in.

Very similar to the next, which is our common species, but the female is not quite as rusty. Found in Labrador and about Hudson Bay.

CANADA GROUSE; SPRUCE GROUSE

298c. *C. c. canace*. 15 in.

Male black and grayish; female chiefly rusty, barred with black. The Spruce Grouse is usually found in dense thickets and groves or swamps of evergreen woods. It is one of the least suspicious of birds, and in winter, is sometimes knocked down by sticks in the hands of deer hunters. Their flesh is unfit to eat and consequently they are not hunted.

Notes.—A drumming, said to be produced by the wings, when in the air; a clucking by the female.

Nest.—Eggs laid on the ground, usually under low, spreading branches of spruces; bright buff with bold black blotches. (1.70 x 1.25).

Range.—Northern New England, New York and Minnesota, northward.

RUFFED GROUSE

300. *Bonassa umbellus*. 17 in.

Crested and with two large, black, neck-ruffs; plumage brown, black and white. Female with the ruffs smaller and usually brownish. These grouse have two color phases, the general tone of plumage being either reddish brown or gray, independent of age or sex of bird. These naturally wild, shy grouse are the kings of the eastern game birds, their wariness and speed with which they will dodge through the trees being the only reasons they have so long withstood the hunting to which they are subjected. During spring, the male struts often, tail expanded into a half circle, head thrown back to meet the upturned tail, and ruff spread so as to form a complete collar. They make a loud drumming by beating the air with their wings.

Nest.—Eggs on leaves in the woods; plain brownish-buff (1.55 x 1.15).

Range.—Resident from Va. and Ark. north to southern Canada. 300a., Canadian Ruffed Grouse (*B. u. togata*), is found in the southern British provinces and northern New England.





WILLOW PTARMIGAN

301. *Lagopus lagopus*. 15 in.

In winter, white with black tail feathers. In summer, usually reddish-brown with black bars. This species has a much stouter bill than the next.

Nest.—Eggs laid on the ground. Rich buffy, so heavily blotched and streaked with black as to nearly conceal it. (1.75 x 1.25).

Range.—Breeds in the northern half of Canada, migrating southward to southern Canada.

301a., Allen Ptarmigan (*L. l. alleni*), found in Newfoundland, is similar, but in winter the shafts of the primaries are always black.

ROCK PTARMIGAN

302. *Lagopus rupestris*. 14 in.

In winter, like the last species, except that the bill is smaller, and the lores are black.

Range.—From the Gulf of St. Lawrence and northern British Columbia northward. 302a. Reinhardt Ptarmigan, replaces the last variety in northern Labrador. 303. Welch Ptarmigan (*L. welchi*), found in Newfoundland, is said to be grayer in summer.

PRAIRIE HEN; PINNATED GROUSE

305. *Tympanuchus americanus*. 18 in.

Tufts of neck feathers rounded or square at the ends, long on the males, and short on the females. Above, barred with brownish-black and white or buffy white, the bars being of about equal width; top of head barred black and grayish. Female differs from the male in having the tail feathers barred, whereas they are black in the male. Found locally throughout the prairie regions of the Mississippi Valley north to Manitoba. Owing to the immense numbers shot for sale in eastern markets, they have become exterminated in many places where they were formerly abundant. Male birds have a loose sac or naked skin beneath the tufts of feathers on the neck; they inflate these to the size of small oranges, and then produce a loud, hollow, resonant booming sound.

Nest.—Anywhere on the ground on the prairie; eggs olive-buff, finely specked with brown.

Range.—From La. and Tex. north to Manitoba and Dakota. 305. Attwater Prairie Hen, smaller and darker, is found in Louisiana and Eastern Texas.





HEATH HEN

306. *Tympanuchus cupido*. 17 in.

Neck feathers pointed; scapulars more broadly tipped with white; axillars always barred; top of head paler and always brownish. These differences will always separate this species from the very similar western bird. They were formerly found throughout Southern New England and the Middle States, their range meeting that of the Prairie Hen, but now they are restricted to the island of Martha's Vineyard, south of Mass., and probably the true form is extinct there, for western birds have been liberated on the island and interbred with the natives.

LESSER PRAIRIE HEN

307. *Tympanuchus pallidicinctus*. 16 in.

Nearest like the prairie hen but paler above, the brown bars being narrower and lighter colored, but with the edges blackish, giving the back of the bird a very different appearance from that of the Prairie Hen. It is found in western Kansas, Indian Territory and Texas.

PRAIRIE SHARP-TAILED GROUSE

308b. *Pediocetes phasianellus campestris*. 18 in.

No pinnates or ruffs on the neck, but the head is crested a little more than that of the Prairie Hen; tail with the central feathers nearly two inches longer than the rest, which are also graduated so the outside ones are much the shortest. Plumage much paler than that of the Prairie Hen, and feathers on the breast and sides being marked with blackish loops. Found in more or less abundance on the plains and prairies west of the Mississippi River. In mating season flocks of them indulge in curious antics, dancing, ruffling their feathers, and cooing and crowing.

Nest.—Eggs laid in a hollow in the ground, usually sheltered by a tuft of grass or bunch of weeds. The eggs are brownish-drab, finely specked, over the whole surface, with blackish-brown. (1.70 x 1.25).

Range.—West of the Miss. River, from New Mexico and Indian Territory north to Manitoba. 308. Sharp-tailed Grouse, is found in the interior of British America from Hudson Bay to Alaska. Darker and less rusty than the preceding.





SAGE GROUSE

309. *Centrocercus urophasianus*. 29 in.

The female of this large and very interesting grouse, differs from the male only in its smaller size and paler, duller plumage. They are found in abundance on the dry sagebrush-covered plains about the Rocky Mts. and to the westward. In summer they feed largely upon insects and buds of various plants, but in fall and winter, their food is almost entirely the leaves of the sagebrush; at this season, in consequence, their flesh is unfit to eat, so they are not hunted for market, and are able to pursue a life of quiet as far as man is concerned. In spring, they indulge in amusing play, as do all the grouse; they have a few wiry hairs on either side of the neck, covering the naked sacs that correspond to those of the Prairie Hen; they strut about with these sacs inflated, and their spread tail, erect, making peculiar buzzing sounds.

Nest.—Eggs laid on the ground under sagebrush; greenish-buff, spotted rather sparingly with brown.

Range.—Sagebrush covered plains from New Mexico to Southern British Columbia and Assiniboia

Family Meleagridæ

WILD TURKEY

310. *Meleagres gallopavo silvestris*. 48 in.

Female much smaller and duller colored than the male. These fine, large birds frequent woodlands and borders of streams, where they search through the underbrush for food in the daytime and sleep in the tallest trees at night. They are one of the shyest birds, and they have reasons for being, for they have been hunted until there are none left in New England and northern Middle States. Wild Turkeys strut and gobble precisely like domestic ones. Their plumage is more of a coppery bronze color and their upper tail coverts are rusty, without white edges.

Nest.—Eggs laid on the ground among leaves, usually in dense thickets; buff, spotted with brown. (2.55 x 1.90).

Range.—From Penn. and Ohio south to the Gulf States west to Arkansas. 310b., Florida Wild Turkey, found in Florida, is smaller. 310c., Rio Grande Turkey, is found in southern Texas; it has upper tail-coverts edged with buff.





RING-NECKED OR MONGOLIAN PHEASANT

*** *Phasianus torquatus*

The male of this beautiful pheasant varies greatly in length according to the development of the tail, sometimes being 36 in. in length; the female averages about 22 in. and is plain colored, but still a very handsome bird. Males vary greatly in the richness of their colors, and in the width of the white collar on the neck, the latter depending upon the extent to which they have been interbred with the English Pheasant, the latter bird having no white on the neck. These pheasants have been introduced in Oregon and Washington and are very abundant there now. Attempts at introducing them in the East have not been as successful, but in some private preserves they are doing well. They are rather sluggish in their habits, compared to our Ruffed Grouse, and usually try to escape by running or hiding rather than by taking wing; when they do fly, they go in a straight line and rather slowly.

FAMILY CRACIDÆ

CHACHALACA

311. *Ortalis vetula mecalli*. 21 in.

Plumage olive-brown above, and gray below; head crested; sides of head and chin, naked, orange-red. These birds are found in southern Texas, in dense woods, thickets and chaparral. They are very noisy, their calls being loud, harsh, clackings, "cha-cha-lac," repeated rapidly and taken up by all the birds in the neighborhood. They are not usually shy and are often domesticated. They are also hunted to some extent, but their flesh is said not to be very good eating, and their body is quite small compared to the length of the bird.

Nest.—A frail platform of sticks, placed in scrubby brush or bushes, a few feet above the ground. They lay four white or buffy-white eggs, the shell of which is very rough and hard (2.25 x 1.55); April.

Range.—Eastern Mexico north to southern Texas.





PIGEONS AND DOVES—Order Columbæ

Family Columbidae

PASSENGER PIGEON

315. *Ectopistes migratorius*. 16 in.

Head and back bluish-slate; below, rich rusty brown. Only a few years ago, up to 1880, they were extremely abundant in eastern North America. Seemingly incredible stories are told of the immense flocks and roosting places of these birds, and most of them are authentic. It is unfortunate that the camera was not extensively used then, so we have no visual records of them. A nesting place in Michigan is described as 28 miles in length by about four in width, and every tree in the woods, throughout this whole tract, had several nests, and some were filled with them. Flocks darkening the sky and covering several square miles are recorded. And, today, but one or two stragglers are reported in a year, and these are usually doubtful. They were shot and netted at their roosting and nesting places, barreled up and sent to market for sale, this continuing so long as there were birds enough to make it profitable, and we reap the result—no birds.

MOURNING DOVE

316. *Zenaidura macroura carolinensis*. 12 in.

Upperparts olive-brown; below, buffy-gray; a small black mark on the ears above the iridescent neck patch.

These birds never flock as Passenger Pigeons did, traveling in companies of six to a dozen, and they have no common nesting or roosting places, but nest anywhere in the woods, orchards or vines. As they are not often hunted, they are not shy, and in some localities are very tame, especially when they are breeding. Their food consists of seeds, grain, berries and insects, most of which they get from the ground. They nest either in trees, bushes or on the ground, most often the former. Their nests are very frail platforms, composed of only a few twigs and rootlets; when on the ground, usually no nest is made. Their two eggs are pure white, as are those of all doves. They are loving birds, always cooing to each other, and are very attentive to their young until they are full grown.

Range.—Breeds throughout the United States and southern Canada, except northern New England and the Provinces.





WHITE-FRONTED DOVE

318. *Leptotila fulviventris brachyptera*. 12 in.

No black ear-mark; under wing coverts rusty chestnut. Forehead whitish; all but central pair of tail feathers tipped with white.

Nest.—Indistinguishable from that of the next species.

Range.—Central America and Mexico, north in February to valley of Lower Rio Grande.

WHITE-WINGED DOVE

319. *Melopelia asiatica*. 12 in.

Large black patch on the ears; tail only moderately long, and broadly rounded, with large white ends to the outer feathers. Besides the regular cooing notes, common to doves, this species has a peculiar song likened by some, to the first attempts at crowing, of a young rooster.

Nest.—A shabby platform of twigs, lined with bits of weeds, moss and leaves; placed at any height from the ground in bushes, trees or cacti. Eggs white.

Range.—Texas, New Mexico, Arizona and casually southern Florida, southward.

GROUND DOVE

320. *Chæmepelia passerina terrestris*. 6.75 in.

Size very small; tail short and nearly square. Back of head blue-gray; forehead and most of underparts pinkish. Bill, feet and eye, more or less red.

Nest.—A frail structure of twigs, lined with pine needles; placed usually at low elevations in bushes. The two eggs are pure white.

Range.—South Atlantic and Gulf States; abundant near the coasts; winters throughout its range.

320a., Mexican Ground Dove, found from Texas to California, is slightly paler than the eastern species.

INCA DOVE

312. *Scardafella inca*. 8 in.

Tail long, with the outer feathers tipped with white, and shorter than the middle ones. Feathers mostly margined with brownish-black. The bases of the primaries are bright chestnut, and the whole underwing is of that color; bill black; eye and feet reddish.

Range.—Southern Texas, southern Arizona and southern New Mexico.





VULTURES, HAWKS AND OWLS—Order Raptores
 . AMERICAN VULTURES—Family Cathartidæ
TURKEY VULTURE OR BUZZARD

325. *Cathartes aura septentrionalis*. 30 in.

Head naked; red or carmine; bill dull whitish; eyes brown; feet pinkish. Plumage blackish-brown.

Nest.—Their two eggs are laid upon the ground, between rocks, under logs; or in hollow trees; they are whitish, handsomely blotched with brown.

Range.—Breeds from the Gulf north to New Jersey, Illinois, Minnesota and British Columbia.

BLACK VULTURE

326. *Catharista urubu*. 24 in.

Entire plumage, including the naked head, black; feet and tip of bill yellowish. Under surface of the wings white, making it very easy to identify.

Nest.—Two eggs, greenish-white, blotched with brownish. (3.00 x 2.00).

Range.—Resident north to North Carolina, southern Illinois and Kansas.

FALCONS, HAWKS AND EAGLES—Family Falcon-
idæ

SWALLOW-TAILED KITE

327. *Elanoides forficatus*. 24 in.

Tail long and deeply forked; plumage white, and glossy black; feet short but stout; bill black, with cere and feet bluish-gray. The flight of these birds is very swift and swallow-like; at times they circle about for long periods, on motionless wings; at others, they will be seen swooping over marshes and low ground; the evolutions they perform during the mating season are wonderful to behold, floating, sailing, doubling and turning, in all imaginable positions, as though they were a part of the air itself.

Notes.—A shrill whistled “peet-peet.”

Nest.—Composed of twigs, lined with moss and root-lets; usually located in the tops of trees at great heights; 90. to 125 feet from the ground not being uncommon; eggs pale bluish-white, very handsomely marked with brown. (1.85 x 1.5).

Range.—Breeds north to Virginia, Manitoba and Minnesota; winters south of the United States.





WHITE-TAILED KITE

328. *Elanus leucurus*. 16 in.

Head, underparts and tail, white; shoulders black; upperparts gray. Young, with the back tinged with rusty. Their food consists largely of snakes, but they also eat a great many small rodents and insects.

Nest.—Made of sticks, weeds and leaves, and placed in trees at quite an elevation from the ground; eggs creamy white, profusely blotched with brown.

Range.—Texas to central California, and less often east of the Miss. River, north to South Carolina.

MISSISSIPPI KITE

329. *Ictinia mississippiensis*. 14 in.

Head, underparts and ends of secondaries, bluish-gray. Lores and tail black; back dark; eyes red.

Nest.—Of sticks and weeds in the tops of tall trees; eggs bluish white, usually unmarked, but occasionally with a few brownish specks. (1.65 x 1.25).

Range.—Breeds north to South Carolina, southern Illinois and Kansas; winters south of the United States.

EVERGLADE KITE

330. *Rostrhamus sociabilis*. 15 in.

Bill very slender and much hooked, the lower mandible being decurved somewhat, to match the upper; the cutting edge of the bill without a tooth or notch, as most hawks and kites have. Lores naked and yellowish, like the cere; eyes red. Plumage blackish; rump and bases of outer tail feathers, as well as tip white. This tropical species is found in the United States, only in the southern half of Florida, in the densest swamps, being fairly abundant in the Everglades. They are said to feed exclusively upon a certain species of water snail, and each bird has a particular perch to which he takes every snail he captures, and after skillfully extracting the animal with its curiously modified beak, it drops the shell on the mound beneath. (Bendire).

Nest.—Of twigs, lined with leaves and weeds, placed at low elevations in bushes or underbrush, often over water; eggs pale greenish-white, spotted with brown.

Range.—Southern Florida.





MARSH HAWK

331. *Circus hudsonius*. 19 in.

Upper tail coverts and base of tail white. Male, blue-gray above; below whitish, streaked and barred with rusty. Female and young.—Above rusty brownish-black; below rusty with dusky streaks on the breast and sides. As shown by its name, this hawk is found most abundantly in or around marshes or wet meadows. I have found them especially abundant in boggy marshes such as frequented by bitterns. Their flight is quiet and owl-like, and as they do most of their feeding toward dusk, they often seem like owls as they flit by without a sound. Their food is composed chiefly of meadow mice and moles, which they spy and dash down upon as they fly at low elevations.

Notes.—A shrill whistle when their nest is approached.

Nest.—Of grasses, on the ground in marshes; four plain bluish-white eggs. (1.80 x 1.40); May, June.

Range.—Breeds locally in the whole of the United States and Canada, north to Hudson Bay; winters in the southern half of the United States.

SHARP-SHINNED HAWK

332. *Accipiter velox*. 12 in.

This little hawk, so near like the Cooper, is one of the most active of the family, and from this fact it gets its name *velox*, meaning swift. It is often seen in woods, orchard, or even about buildings in large cities, in which latter places, it does good service in catching English Sparrows. If they would confine their food to these birds, no one would object, but unfortunately they will take any little bird that comes within their reach, or that they are able to catch. They are one of the very few hawks that do live largely upon birds, and even they destroy a great many mice.

Notes.—A shrill, three-syllabled whistle.

Nest.—A rude and usually frail structure of twigs, placed in branches of trees, usually at quite low elevations (15 ft.). Eggs white, beautifully blotched with brown. (1.45 x 1.15).

Range.—Breeds chiefly in northern U. S. and Canada; winters throughout the United States.





COOPER HAWK

333. *Accipiter cooperi*. 16 in.

This hawk is a large edition of the last species. All hawks vary in size, this one and the last, perhaps, more than any others. Female hawks are always the largest. A large female of the Sharp-shinned variety, is often as large as a small male Cooper, but the crown of the Cooper is darker than that of the Sharp-shinned, and his tail is always rounded, while that of the last species is nearly square at the end. This is also a destructive species; it is usually one of these two hawks, or the Goshawk, that is responsible for the ill-feeling with which farmers regard all of the family. All small hawks are known to farmers as "Chicken Hawks," and large ones as "Hen Hawks," but the majority of our hawks rarely disturb fowls.

Nest.—Of sticks in crotches of trees, usually quite high up; often old crows nests are used; eggs bluish-white, unmarked or very faintly specked with brown. (1.90 x 1.45); April.

Range.—Breeds from the Gulf north to southern Canada; winters from Mass. and Oregon southward.

AMERICAN GOSHAWK

334. *Astur atricapillus*. 23 in.

Adults, above bluish-slate, darkest on the crown; a whitish line over the eye; below white, finely waved with gray. Young, brownish-black, with lighter edgings to the feathers; below whitish, streaked with blackish-brown. Young birds can easily be distinguished from those of any other species by their large size and the long tail. This handsome species is one of the most rapacious and destructive of our birds of prey. Their short wings and long tail enable them to glide among the thickest foliage with great speed, and even the Ruffed Grouse cannot escape them. In the north where they live in summer, they destroy great numbers of Ptarmigan and Spruce Grouse, and come to us in the winter with their appetite whetted for a diet of poultry and our game birds, being exceedingly bold in their capture.

Nest.—Of sticks lined with weeds and bark, in tall trees; eggs white, unmarked.

Range.—Breeds throughout Canada; winters in the northern half of the United States.





HARRIS HAWK

335. *Parabuteo unicinctus harrisi*. 20 in.

Tail coverts, base and tip of tail, white. Adults with the shoulders, thighs and under wing-coverts, reddish-brown. Young with rusty edgings to feathers on the back; below, rusty buff with blackish spots or streaks; thighs barred with blackish. Space in front of eye, bare except for stiff hair-like bristles, yellowish like the cere. This species is the connecting link between the vultures and hawks of the genus *buteo*. Its feedings habits are similar to those of the vultures, with which it often associates when feeding upon carrion. They are very sluggish birds and their flight is slow and heavy; when not feeding they are usually perched on one foot on some dead limb, dozing.

Nest.—Made of sticks, twigs and weeds, placed in bushes or low trees. Their three or four eggs are dull white, unmarked (2.10 x 1.65).

Range.—Mexico, north to southern United States chiefly in Texas, but also found in New Mexico and casually east to Louisiana.

RED-TAILED HAWK

337. *Buteo borealis*. 21 in.

One of the handsomest and most powerfully built of our hawks. Adults with the tail rusty-red, with or without a narrow blackish band near the tip; below white, with a band of blackish streaks across the breast, and dusky markings on the sides. Young birds are similar, but have the tail grayish-brown with black bands. An examination of the food of this bird of prey, made by the Department of Agriculture, shows that, instead of living upon poultry as most farmers think, their food consists chiefly of frogs, snakes, lizards, mice and insects, less than one in ten of the stomachs examined containing any remains of poultry.

Notes.—A shrill whistle or scream.

Nest.—Of sticks, weeds, leaves and trash high up in tall trees; eggs white, spotted with blackish-brown.

Range.—Breeds in United States and Southern Canada; winters in the United States. 337a., Krider Hawk is a paler race found on the plains from Minn. to Texas. 337d., Harlan Hawk, is darker and has the tail mottled with blackish; found in the Gulf States.





RED-SHOULDERED HAWK

339. *Buteo lineatus*. 19 in.

Adults with the shoulders bright reddish-brown; primaries and secondaries barred with black and white; below buffy thickly barred with rusty-brown. Young with the shoulders duller; underparts white, streaked all over with blackish-brown. This is one of the most abundant of the birds of prey in Eastern United States, and it is also one of the most useful, destroying quantities of moles and field mice, as well as grasshoppers. Usually one or more pairs will be found in a piece of woods. One pair that I know, and I presume it is the same pair, each year has its nest on the edge of a colony of Black-crowned Night Herons and, during the season, they live and feed their young largely upon the young of these birds.

Nest.—Of sticks, lined with weeds and strips of bark; eggs white, blotched with brown (2.15 x 1.75). April, May.

Range.—Breeds from the Gulf to Maine and Minnesota. 339a. Fla. Red-Shouldered Hawk, found in Florida and north to So. Car., is paler colored.

SENNETT WHITE-TAILED HAWK

341. *Buteo albicaudatus sennetti*. 22 in.

Adults grayish-slate above and to the sides of the throat; tail and underparts white, the former with a subterminal band of black and indistinct wavy lines and the latter with fine barring on the sides. The shoulders are largely chestnut. Young birds are brownish-black above and usually white below, but the underparts are variable—often streaked with rusty and blackish, or even wholly black.

They are useful hawks, their food consisting chiefly of insects and moles or mice.

Nest.—Built in bushes in open land, rarely more than six feet above ground. Composed of sticks, dry weeds and grasses making a bulky structure visible for a long distance. Three eggs are not uncommon but two is the usual number; they are dirty white with very few marks of brown (2.35 x 1.85). Their nesting season ranges from as early as February to July.

Range.—Not uncommon on the Gulf coast of Texas and in the lower Rio Grande Valley, southwards into South America.



SWAINSON HAWK

342. *Buteo swainsoni*. 20 in.



This species has the greatest variety of plumages of any of our hawks. It has only three outer primaries notched near the tips, while the two last species, which are the only ones that can be confused with it, have four. Adults in the light phase have a band of rich chestnut across the breast. Adults in the dark phase are uniform blackish-brown, with some rusty edgings and with thighs more or less rusty. Young birds are buffy below, with elongated blackish spots. Its harmless character can be understood from the fact that it is no unusual sight to find other birds, such as Arkansas Kingbird and Bullock Oriole, nesting in the same tree; and the first mentioned species goes even further than this, sometimes constructing its home in the sides of the nests of the hawks.

Nest.—Of sticks and twigs, either in trees or on the ground on rocky ledges; eggs white, spotted with brown. (2.20 x 1.70).

Range.—Western N. A., breeding from Texas to the Arctic regions; east to Illinois and west to the Pacific.

BROAD-WINGED HAWK

343. *Buteo platypterus*. 16 in.

Adults grayish-brown above; below, streaked on the throat and breast, and barred below, with rusty-brown; tail with three blackish bars. Young similar above; below white, streaked with blackish-brown. They are most apt to be confused with the Cooper and Red-Shouldered Hawk, but when in flight, it can usually be distinguished at a distance, from the former by its shorter tail, and from the latter by its smaller size and rounded wings. They may be classed as abundant east of the Great Plains. They are rather solitary in their habits, especially during the breeding season, when but one pair is usually found in a piece of woods.

Notes.—A long, squeaking wail, sounding much like two branches rubbing together and creaking.

Nest.—Of sticks, invariably lined with pieces of bark; usually placed in crotches next to the trunks of large trees, but not usually at a great height; eggs whitish, more or less blotched with brown and gray.

Range.—Breeds north to New Brunswick and Manitoba; winters in southern half of the United States.





AMERICAN ROUGH-LEGGED HAWK

347a. *Archibuteo lagopus sancti-johannis*. 22 in.

Legs feathered to the toes. Adults blackish on the back and belly; head and breast, more or less grayish-white, streaked with dusky; tail white, barred on the end with black; eyes brown. In the dark phase they are blackish-brown, more or less mixed with rusty. This large, heavily-built species is found in the United States, only in winter; it frequents thinly wooded districts or meadows, where it catches its prey, which consists of small rodents, insects and reptiles. It is very irregular in its appearance, especially in the east, but it is most often found near the coast. It is a sluggish species and I doubt if it does any harm to wild birds or to poultry; it certainly does a great deal of good.

Nest.—Of sticks, on rocky ledges; eggs bluish-white, boldly splashed with brown. (1.90 x 1.55).

Range.—Breeds north of the United States border; winters in northern United States.

FERRUGINOUS ROUGH-LEGGED HAWK

348. *Archibuteo ferrugineus*. 23 in.

Legs feathered to the toes. Adults with back, shoulders, thighs and legs, rusty, barred or streaked with black; tail grayish-white, tinged with rusty. Young birds are brownish-black, above and without any rusty below. In the dark phase they are sooty-brown, more or less varied with rusty, and the tail is the same as in the light plumage. Their bill is larger and tail longer than that of the last species. A fairly abundant hawk on the plains and prairies west of the Miss., usually not at a great distance from water.

Nest.—Usually on the ground on bluffs or rocky ledges, but sometimes in trees; made of sticks and weeds; sometimes used year after year, and then becoming bulky, as it is added to each year; eggs white, handsomely spotted and blotched with blackish-brown, very variable.

Range.—Breeds west of the Miss., from Kansas, locally, and the Dakotas, abundantly, north to Saskatchewan. Winters south to Mexico.





GOLDEN EAGLE

349. *Aquila chrysaetos*. 35 in.

Legs feathered to the toes. Plumage blackish-brown, adults having the lengthened feathers on the nape, golden-brown, and the tail more or less mixed with white; leg feathers rusty. These large, handsome, well-built birds of prey are fairly abundant in thinly settled country west of the Miss., especially in mountains and foot-hills. They are very powerful birds and a single pair of them will rule the whole country in which they reside. They are very shy in the presence of man and will never attack a person or show fight unless wounded or surprised at their meals. Their food consist of prairie dogs, rodents, ducks and even fawns.

Notes.—A shrill a “kee-kee-kee.”

Nest.—A very bulky structure of large sticks, lined with twigs, needles and in some cases evergreen; eggs creamy-white, spotted, splashed and clouded with various shades of brown and gray (2.90 x 2.50).

Range.—West of the Miss., from Mexico northward; rarely eastward to the Atlantic coast.

BALD EAGLE

352. *Haliaeetus leucocephalus*. 34 in.

Legs not feathered to the toes. Adults with white head and tail. Young birds similar in color to those of the Golden Eagle, but blacker and with the legs always bare on the lower half. Young, with brown eyes, like those of the last; adults with yellow eyes and feet. This handsome bird of prey, our national emblem, is resident and locally distributed throughout the United States and Canada, always near streams or lakes, and most abundant on the seacoasts. Their food, like that of the Golden Eagle, is chiefly caught by themselves, and consists of any small mammals, geese, ducks, etc., and during the summer, or when their usual food is scarce, they feed upon fish, which they either catch for themselves or taken by force from Ospreys.

Nest.—Of sticks large and bulky, and usually in tops of very tall trees; two eggs, pure white. (2.75 x 2.10).

Range.—Resident locally in whole of North America.





WHITE GRYFALCON

353. *Falco islandus*. 23 in.

Adults in perfect plumage, pure white, slightly barred on the back and spotted below with black.

Nest.—Of sticks, lined with grasses and feathers; placed on ledges of cliffs; eggs bulky white, specked with reddish brown, often so thickly that the ground color is obscured (2.30 x 1.80).

Range.—Arctic region, breeding in Northern Greenland, and wintering to the Gulf of St. Lawrence, and casually to northern Maine.

GRAY GYRFALCON

354. *Falco rusticolus*. 23 in.

Adults white, heavily barred above, and streaked below with gray and black.

Range.—Arctic regions, south in winter, rarely to northern United States.

354a. GYRFALCON (*F. r. gyrfalco*). Similar to the last but darker, the latter being usually more white than dusky, while this is the reverse.

354b. BLACK GYRFALCON (*F. r. obsoletus*). Much darker than the last, the markings tending to be buffy white spots on a grayish black ground.

PRAIRIE FALCON

355. *Falco mexicanus*. 18 in.

A blackish patch on the sides of the throat, similar to that of the Duck Hawk. Above brownish black, much paler and never with the slaty color of the Duck Hawk; below streaked or spotted with blackish brown. These falcons are fairly abundant on the western plains and prairies, and are also found in wooded mountain regions. They are strong and active and will fight fiercely if captured. They live upon small mammals, birds and occasionally, grouse. Their flight is very swift and accomplished by rapid wing beats, with occasional sailings.

Notes.—A cackle, and rapidly repeated “kee-kee-kee.” (Bendire).

Nest.—A mass of sticks and trash, on bluffs or rocky ledges, and sometimes in trees; eggs reddish buff, thickly sprinkled and blotched with brown. (2.50 x 1.60).

Range.—Eastern border of the Great Plains to the Pacific; and from Saskatchewan to southern Mexico.





DUCK HAWK

356a. *Falco peregrinus anatum*. 17 in.

Black moustache mark, or patch on each side of the throat. Adults white below, tinged with buffy on the breast and sides, and lightly barred with black; above bluish slate, darkest on the crown. Some adults are darker, and much more heavily barred than others. Young, brownish black with rusty edges to the feathers; below, buffy, heavily streaked with blackish. This is one of the handsomest and most dashing of the raptors, and is very similar to the one formerly most used for the chase in England. They are swift and fearless in pursuit of their prey, and the fastest flying ducks as well as the slower herons fall easy victims to their valor. Their feet are exceptionally large, and they are often, on this account, known as Great-footed Hawks.

Nest.—Eggs laid upon bare ledges or soil, with very little, if any, nest. Bright buff, marked with rich rusty brown. (2.05 x 1.55).

Range.—Breeds in Northern United States and Canada, most abundant west of the Miss.

PIGEON HAWK

357. *Falco columbarius*. 12 in.

Adult male, bluish slate above, with black shaft lines to the feathers; below buffy on the breast, sides and thighs; streaked on the breast and barred on the flanks with black; tail with four black bands. Female and young, blackish brown above; below streaked with dusky. These little falcons are very bold and courageous when led by the pangs of hunger, chasing their prey close to human beings, and they have been known to follow birds, which, in their fright, have dashed through windows in houses. They live upon any of the smaller birds, as well as rodents, grasshoppers and other insects.

Nest.—Usually a slight platform of twigs in trees, deep in the woods, less often in cavities in trees, and sometimes on ledges; eggs buffy, heavily blotched with chestnut. (1.50 x 1.20).

Range.—Breeds chiefly north of the United States, but occasionally on the northern border; winters in northern United States.



RICHARDSON MERLIN

357b. *Falco columbarius richardsonii*. 12 in.



Both adults and young are similar to the same of the last species, but they are much paler colored, and the tail is crossed by six light bars. The habits of this species, which seems to have quite a limited range, are precisely like those of the Pigeon Hawk. Like that species, it flies swiftly, with rapidly beating wings, and occasionally sails and soars. The under surface of the wings is prominently barred, but not as much so as that of the Pigeon Hawk; it is very conspicuous when in flight.

Nest.—Either in hollow trees, or a rude platform of sticks, usually not very high from the ground; eggs buffy white, handsomely blotched with brown. (1.60 x 1.25).

Range.—From the Miss. to the Rockies, and from Mexico north to Saskatchewan, locally distributed.

SPARROW HAWK

360. *Falco sparverius*. 10.5 in.

This is the smallest and one of the handsomest of our hawks. Cannot be mistaken for any other species, because of its bright colors and odd marking. The female is barred on the back, wings and tail, while the male has but a few short bars on the back. The general tone of both, above, is a bright rusty-brown. This is the most abundant hawk that we have, and it is also best known, chiefly because it is found commonly in the vicinity of farmhouses and commonly on the outskirts of cities. Their flight is peculiar, a few rapid wing beats, then a short sail, alternately. They are very noisy in mating season and when the young birds first fly, their notes being a rapidly repeated, "killy-killy-killy." Their food is of grasshoppers, mice and rarely small birds.

Nest.—Usually in cavities in trees, often in deserted Flicker holes, the eggs being laid upon the bare wood. They are cream colored, finely sprinkled and spotted with brown. (1.35 x 1.10).

Range.—Breeds from the Gulf States to Labrador and Hudson Bay. Winters in southern United States.



AUDUBON CARACARA

362. *Polyborus cheriway*. 22 in.



These peculiar birds cannot be mistaken for any of our hawks or falcons. They are very sluggish birds, with habits resembling both those of buzzards and some of the hawks. They are usually known in localities where they are found, as Caracara Eagles. As we might suspect from the shape of their bill, the naked and bristle-covered lores, and the feet, which have not the strongly hooked talons of hawks, the food of these birds is largely carrion. It is terrestrial in its habits and is most often seen, when not in flight, either upon the ground, or standing erect on branches at low elevations. They are more quarrelsome in their disposition than are vultures, and frequently fight over their prey.

Nest.—A bulky, but shabby pile of sticks and weeds, in bushes or low trees; eggs buff, sprinkled, spotted or blotched with yellowish brown or chestnut. (2.50 x 1.80).

Range.—Resident of the Mexican border of the U. S. and in southern Florida.

AMERICAN OSPREY; FISH HAWK

364. *Pandion haliaetus carolinensis*. 23 in.

Real old birds have the head whiter, and less white edging to the back feathers, than do the young. Feet very strong, and very hard and rough, perfectly adapted to grasping slippery fish; outer toe can be used equally as well, either in front or behind, when perching or grasping their prey. Their food is entirely of fish, which they catch themselves, by plunging after it, hovering in the air a few seconds while watching the fish, preparatory to diving upon it. They are always found about water and are very numerous on the seacoasts, where twenty or more may frequently be seen at a time. They are protected by law in some states, and by public sentiment in most others.

Notes.—A loud, tremulous, piercing whistle.

Nest.—Usually in trees; large and bulky, of sticks; sometimes on the ground, telegraph poles, chimneys, etc. Eggs creamy buff, blotched with rich brown. (2.40 x 1.80).

Range.—Breeds from the Gulf to Labrador and Alaska; winters in the southern half of the U. S.





FAMILY ALUCONIDÆ

BARN OWL

365. *Aluco pratincola*. 18 in.

Plumage very soft, finely barred and specked; general coloration gray, yellowish-brown and white. No ear tufts; eyes small and brown; face very long; legs very long. These peculiar owls are abundant in the south, where they are commonly known as "Monkey-faced Owls," because of their odd visage. They are very useful birds, and are usually recognized as such. Their food consists almost wholly of small squirrels, rodents, reptiles and insects. It does most of its hunting just after dusk and early in the morning. Its flight is rather slow and entirely noiseless, as is that of all the members of the family.

Nest.—In hollow trees, under the roofs of barns or in caves; the four to six eggs are pure white. (1.70 x 1.30).

Range.—United States, breeding north to New York, Ontario, and Washington. Winters in the southern half of the United States.

HORNED OWLS—Family Bubonidæ
AMERICAN LONG-EARED OWL

366. *Asio wilsonianus*. 15 in.

This species can readily be distinguished from the next, which is the only one of the same size, by its long ear tufts; it is also darker, and the markings on the breast are largely in the form of bars. In the northern portions of the United States, this species is probably the most abundant of owls, excepting the little Screech Owl. It is often quite common, where its presence is little suspected, because, unless disturbed, it flies only at night and is a rather silent species. During the daytime it is usually sitting upright in the dense tops of evergreen trees. Crows often discover them, and proclaim their hiding place to the whole neighborhood by their incessant cawing. Owls of all kinds are in disfavor with crows.

Notes.—A soft-toned “wo-hunk, wo-hunk.” (Bendire.)

Nest.—They lay from four to seven pure white eggs, usually in old crow nests.

Range.—Resident from the Gulf to Nova Scotia and Manitoba.



SHORT-EARED OWL

367. *Asio flammeus*. 15.5 in.



Ear tufts very short; general color buffy, not nearly as brown nor as dark as the last species usually is. They are not nearly as nocturnal as most of the owls, and most of their hunting is done about dusk, when they may be seen flying close to the ground over marshes or low land. Their flight is perfectly silent, which aids them in securing their prey of field mice, which they usually get without stopping in their flight, just swooping down, extending their long legs, armed with wicked little claws, and it is all over with the little rodent, he being carried to a nearby stump, and devoured, fur, bones and all.

Notes.—A very short, shrill cry, evidently their call note, and a low clucking uttered as they swoop over your head; besides the usual snapping of the bill.

Nest.—On the ground, usually in marshes; the four to seven eggs are pure white. (1.55 x 1.25).

Range.—Breeds locally from the Gulf to the Arctic regions; winters throughout the United States.

BARRED OWL

368. *Strix varia*. 20 in.

Eyes dark brown. This is the most abundant of the large owls throughout its range. It has no ears. This species is the common "hoot owl," that is the terror of small children and many older ones. They are noisy birds, and two of them like to get at opposite sides of a piece of woods and talk to each other. Their notes are very variable but are oftenest combinations of "who-whos" and "too-toos," often ending in a mournful wail. They spend the day in slumber, unless routed out of the dense trees where they rest, by crows or human beings. They are one of the least harmful of the family and should be protected.

Nest.—Usually in hollow trees, but sometimes in old crow nests. Eggs pure white (1.95 x 1.65).

Range.—Resident in eastern North America. 368a. Florida Barred Owl (*alleni*), is smaller, darker and the toes are unfeathered, as are those of 368b, Texas Barred Owl, found in southern Texas.



GREAT GRAY OWL

370. *Scotiapterx nebulosa*. 27 in.



Tail long; eyes small and yellow. This large owl is only found in Northern United States during the winter. Its tail is unusually long, as are all its feathers, thereby making it appear a very much larger bird than it really is; it weighs but little more than the Barred Owl. They do not appear to be in especial abundance anywhere, but occasionally large flights of them will occur in some parts of the country; they seem to occur most freely in Minnesota and North Dakota. They are nocturnal like the majority of the family, and subsist largely upon mice and hares.

Nest.—Of sticks, in trees, usually pines, in heavily wooded districts; eggs white. (2.15 x 1.70).

Range.—Breeds from southern Labrador, Hudson Bay and Alaska northward; winters south to the northern border of the United States and casually to Long Island and Illinois.

RICHARDSON OWL

371. *Cryptoglaux funerea richardsoni*. 10 in.

This species bears considerable resemblance to the little Acadian Owls, but is grayer; the top of the head has numerous round white spots and the wing coverts are spotted with white.

Nest.—Usually in holes of trees; eggs white.

Range.—Breeds throughout Canada, and possibly in the northern parts of the northern states; winters south to northern United States.

SAW-WHET OWL; ACADIAN OWL.

372. *Cryptoglaux acadica*. 8 in.

Smallest of our eastern Owls; no ear tufts. General color brownish above and white below with the sides streaked with brown. No markings on wing coverts, but scapulars spotted with white. It is chiefly nocturnal in its habits and, consequently, is not often seen even if they are abundant.

Range.—Breeds from northern U. S. northward; winters in northern United States.





SCREECH OWL

373. *Otus asio*. 9.5 in.

Two color phases independent of age, sex or season; eyes yellow; has ear tufts. The Screech Owl, or its sub-species, is found throughout the United States, and is one of the most abundant and best known of the family. They are not at all timid, in winter frequently being found in church towers, while on the outskirts of cities and in the country, they reside, at all seasons of the year, in orchards. They remain mated for life, and live in the same tree for years, if not too much disturbed by curious boys. Both adults and the four young are often found in the nest together, and they offer no resistance when they are removed by hand. Their food is almost wholly of insects and rodents.

Notes.—A wavering trill.

Nest.—In holes of trees; eggs white (1.35 x 1.20).

Range.—Resident in U. S. and southern Canada. 373a. Florida Screech Owl (*floridanus*), is smaller and slightly darker. 373b. Texas Screech Owl (*mexicanus*), is smaller and more heavily barred on the sides.

GREAT HORNED OWL

375. *Bubo virginianus*. 23 in.

Has ear tufts, thus distinguishing it from any other of our large, powerfully built owls. These large birds are the fiercest, most active and most destructive of the family. Their size and strength allows them to kill skunks and woodchucks, as well as poultry, grouse and small mammals and birds. They seem to be especially fond of skunks, and nearly all of them that I have seen or handled, have given unmistakable evidence of their recent and close association with these animals.

Notes.—A deep, dismal “who-who,” and a loud unearthly shriek.

Nest.—Usually in deserted hawk or crow nests, and also in hollow trees; eggs white. (2.25 x 1.85). Feb., March.

Range.—Breeds and resident from the Gulf to Labrador. 375a. Western Horned Owl (*pallascens*) is paler colored; found in the plains and Rockies north to Manitoba. 375b. Arctic Horned Owl (*subarcticus*), is chiefly black and white; found in Arctic America, wintering south to northern border of United States.





SNOWY OWL

376. *Nyctea nyctea*. 25 in.

No ear tufts. Plumage white, more or less heavily spotted with black, the female usually being quite strongly barred on the back. They are locally abundant in the far north, preferring low, mossy lands to the more timbered districts. Here they find an abundance of food during the summer months, living upon hares, lemmings, ptarmigan and ducks. They are about the equal of the Horned Owl in strength, and usually will weigh a few ounces more; they will frequently kill animals or birds as heavy, or heavier, than themselves. They also catch a great many fish; these they get in shallow water among the rock-weed covered stones, by reaching down quickly and seizing their prey in their strong claws.

Nest.—On the ground in dry portions of marshes; the 2 to 8 eggs are pure white.

Range.—Breeds from Labrador and Hudson Bay, northward, and possibly farther south; winters casually to the Middle States, and commonly to Minnesota and Maine.

AMERICAN HAWK OWL

377a. *Surnia ulula caparoch*. 15 in.

Tail long and rounded; plumage mottled black, white and gray, with little, if any, brownish tinge; heavily barred with black. These owls, curiously resembling a hawk in build, and more so in flight, are very active and hunt more during the daytime than after dark. They feed largely upon small rodents and lemmings which are very abundant in their summer home, and also kill a great many small birds. They seem to be impartial to wooded districts, or open marshes and low lands, where they may be seen skimming about close to the ground.

Nest.—Either of sticks in the tops of trees, or in hollow cavities. The eggs are white, as are those of all owls, and nearly globular in shape. (1.40 x 1.25).

Range.—Breeds from Newfoundland and Manitoba northward, and possibly farther south on the mountains. Winters south to northern United States, rarely to New York and Illinois.





BURROWING OWL

378. *Speotyto cunicularia hypogaea*. 10 in.

Legs very long, and nearly bare on the lower part of tarsi; tail short; no ear tufts. An abundant and useful species in the prairie regions west of the Mississippi. They live in the same region that prairie dogs are found, using deserted burrows of these animals, or taking them by force, for they are more than a match for these curious animals; they do not, as has often been said, live peaceably in the same burrows with them. On the contrary, young prairie dogs, as well as rodents, small snakes and birds, form a large part of their daily diet. They are both diurnal and nocturnal, doing most of their hunting after dusk, but often seen sitting at the mouth of the burrow during the daytime. The six to ten eggs that they deposit at the end of these burrows are white.

Range.—West of the Miss. Valley, north to Southern Manitoba and British Columbia. 378a. Florida Burrowing Owl (*floridana*), is smaller and whiter; found in southern Florida.

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PREPARING BREAKFAST

(Two adult Chipping Sparrows breaking worm into pieces to feed young).

PREFACE.

The native birds are one of our nation's most valuable assets. Destroy them, and in a comparatively few years the insects will have multiplied to such an extent that trees will be denuded of their foliage, plants will cease to thrive and crops cannot be raised. This is not fancy but plain facts. Look at the little Chickadee on the side of this page. She was photographed while entering a bird box, with about twenty-five plant lice to feed her seven young; about two hundred times a day, either she or her mate, made trips with similar loads to feed the growing youngsters.

It has been found, by observation and dissection, that a Cuckoo consumes daily from 50 to 400 caterpillars or their equivalent, while a Chickadee will eat from 200 to 500 insects, or up to 4000 insect or worm eggs. 100 insects a day is a conservative estimate of the quantity consumed by each individual insectiv-



orous bird. By carefully estimating the birds in several areas, I find that, in Massachusetts, there are not less than five insect-eating birds per acre. Thus this state with its 8000 square miles has a useful bird population of not less than 25,600,000, which, for each days fare, requires the enormous total of 2,560,000,000 insects. That such figures can be expressed in terms better understood, it has been computed that about 120,000 average insects fill a bushel measure. This means that the daily consumption, of chiefly obnoxious insects, in Massachusetts is 21,000 bushels. This estimate is good for about five months in the year, May to September, inclusive; during the remainder of the year, the insects, eggs and larvae destroyed by our Winter, late Fall and early Spring migrants will be equivalent to nearly half this quantity.

It is the duty, and should be the pleasure, of every citizen to do all in his or her power to protect these valuable creatures, and to encourage them to remain about our homes. The author believes that the best means of protection is the disseminating of knowledge concerning them, and the creating of an interest in their habits and modes of life. With that object in view, this little book is prepared. May it serve its purpose and help those already interested in the subject, and may it be the medium for starting many others on the road to knowledge of our wild, feathered friends.

Chester A. Reed.

Worcester, Mass.,

October 1st, 1905.

INTRODUCTION.

It is an undisputed fact that a great many of our birds are becoming more scarce each year, while a few are, even now, on the verge of extinction. The decrease in numbers of a few species may be attributed chiefly to the elements, such as a long continued period of cold weather or ice storms in the winter, and rainy weather during the nesting season; however, in one way or another, and often unwittingly, man is chiefly responsible for the diminution in numbers. If I were to name the forces that work against the increase of bird life, in order of their importance, I should give them as:—Man; the elements; accidents; cats; other animals; birds of prey; and snakes. I do not take into consideration the death of birds from natural causes, such as old age and disease, for these should be counterbalanced by the natural increase.

There are parts that each one of us can play in lessening the unnatural dangers that lurk along a bird's path in life. Individually, our efforts may amount to but little, perhaps the saving of the lives of two or three, or more, birds during the year, but collectively, our efforts will soon be felt in the bird-world.

How Can We Protect the Birds?—Nearly all states have fairly good game laws, which, if they could be enforced, would properly protect our birds from man, but they can not be; if our boys and girls are educated to realize the economic value of the

birds, and are encouraged to study their habits, the desire to shoot them or to rob them of their eggs will be very materially lessened. It is a common practice for some farmers to burn their land over in the Spring, usually about nesting time. Three years ago, and as far back of that as I can remember, a small ravine or valley was teeming with bird life; it was the most favored spot that I know of, for the variety and numbers of its bird tenants. Last year, towards the end of May, this place was deliberately burned over by the owner. Twenty-seven nests that I know of, some with young, others with eggs, and still others in the process of construction, were destroyed, besides hundreds of others that I had never seen. This year the same thing was done earlier in the season, and not a bird nested here, and, late in Summer, only a few clumps of ferns have found courage to appear above the blackened ground. Farmers also cut off a great many patches of underbrush that might just as well have been left, thus, for lack of suitable places for their homes, driving away some of their most valuable assistants. The cutting off of woods and forests is an important factor in the decrease of bird life, as well as upon the climate of the country.

Our winter birds have their hardships when snow covers the weed tops, and a coating of ice covers the trees, so that they can neither get seeds nor grubs. During the nesting season, we often have long-continued rains which sometimes cause an enormous loss of life to insect-eating birds and their young. In 1903, after a few weeks' steady rain and damp weather, not a Purple Martin could be found in Worcester County, nor, as far as I know, in New England; they were wholly unable to get

food for either themselves or their young, and the majority of them left this region. The Martin houses, when cleaned out, were found to contain young, eggs and some adults that had starved rather than desert their family. The Martins did not return in 1904 or 1905.

Birds are subject to a great many accidents, chiefly caused by flying into objects at night. Telephone and telegraph wires maim or kill thousands, while lighthouses and steeples often cause the ground to be strewn with bodies during migrations. Other accidents are caused by storms, fatigue while crossing large bodies of water, nests falling from trees because of an insecure support, and ground nests being trod upon by man, horses and cattle.

In the vicinity of cities, towns, villages or farms, one of the most fertile sources of danger to bird life is from cats. Even the most gentle household pet, if allowed its liberty out of doors, will get its full quota of birds during the year, while homeless cats, and many that are not, will average several hundred birds apiece during the season. After years of careful observation, Mr. E. H. Forbush, Mass. state ornithologist, has estimated that the average number of birds killed, per cat population, is about fifty. If a dog kills sheep or deer, he is shot and the owner has to pay damages; if a man is caught killing a bird, he pays a fine; but cats are allowed to roam about, without restriction, leaving death and destruction in their wake. All homeless cats should be summarily dealt with, and all pets should be housed, at least from May until August, when the young birds are able to fly.

Of wild animals, Red Squirrels are far the most destructive to young birds and eggs; Chipmunks and Grays are also destructive but not nearly as active or impudent as the Reds. Skunks, Foxes and Weasels are smaller factors in the decrease of bird life.

Birds of prey have but little to do with the question of bird protection for, with a few exceptions, they rarely feed upon other birds, and nearly all of them are of considerable economic value themselves. Jays, Crows and Grackles, by devouring the eggs and young of our smaller birds, are a far greater menace than are the birds of prey, but even these have their work and should be left in the place that Nature intended for them; they should, however, be taught to keep away from the neighborhood of houses.

How Can We Attract Birds About Our Homes?—Many birds prefer to live in the vicinity of houses, and they soon learn where they are welcome. Keep your premises as free as possible from cats, dogs, and especially English Sparrows, and other birds will come. Robins, Orioles, Kingbirds, Waxwings and a few others will nest in orchard trees, while in dead limbs or bird boxes will be found Bluebirds, Wrens, Swallows, Woodpeckers, Chickadees, etc.

A house for Purple Martins may contain many apartments; it should be erected in an open space, on a ten or twelve foot pole. Boxes for other birds should have but one compartment, and should be about six by six by eight inches, with a hole at least one and one half inches in diameter in one side; these can be fastened

in trees or on the sides or corners of barns or sheds. It is needless to say that English Sparrows should not be allowed to use these boxes. By tying suet to limbs of trees in winter, and providing a small board upon which grain, crumbs, etc. may be sprinkled, large numbers of winter birds may be fed; of these, probably only the Chickadees will remain to nest, if they can find a suitable place.

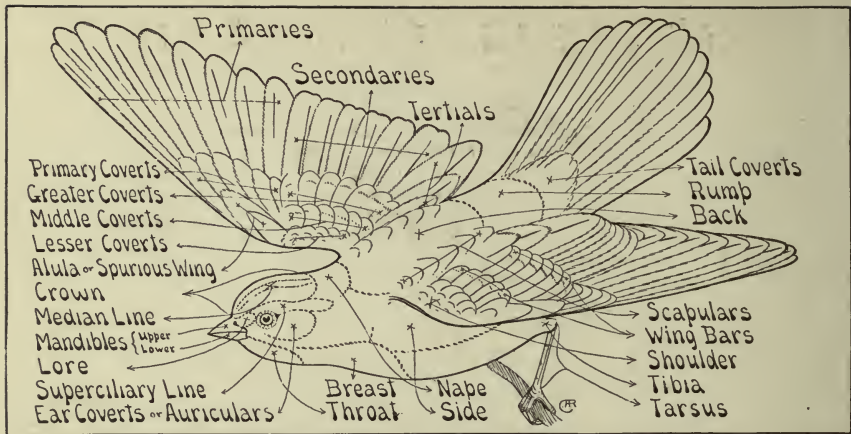
How To Study Birds.—This refers, not to the scientific, but to the popular study of our birds, chiefly in the field. We can learn many very interesting things by watching our birds, especially during the nesting season, and the habits and peculiarities of many are still but imperfectly known. One thing to be impressed upon the student at the start is the need of very careful observation before deciding upon the identity of a bird with which you are not perfectly familiar. A bird's colors appear to differ greatly when viewed in different lights, while in looking up in the tree tops, it is often impossible to see any color at all without the aid of a good field glass. By the way, we would advise everyone to own a good pair of these, for, besides being almost indispensable for bird study, they are equally valuable for use at the sea shore, in the mountains or at the theatre. [We have examined more than a hundred makes of field glasses to select the one best adapted to bird study, and at a moderate price. We found one that was far superior to any other at the same price, and was equal to most of those costing three times as much. It gives a very clear image, magnifies about four diameters and has a very large field of view. It comes in a silk-lined, leather case, with cord for

suspending from the shoulder, and is of a convenient size for carrying in the pocket. We have made arrangements so that we can sell these for \$5.00, postpaid (money refunded if they are not satisfactory after three days trial). Order from Chas. K. Reed, Worcester, Mass.]

We should also advise everyone to keep a note book, apart from the Bird Guide. At the end of the season you can write neatly with ink on the top of the pages of the Guide, the dates of the earliest arrivals and latest departures of the birds that you have recorded. If you see a bird that you do not recognize, make the following notes, as completely as possible:—Length (approximately); any bright colors or patches; shape of bill, whether most like that of a finch, warbler, etc.; has it a median or superciliary line, eye ring, wing bars, or white in the tail; what are its notes or song; does it keep on or near the ground, or high up; are its actions quick or slow; upon what does it appear to be feeding; is it alone or with other birds, and what kinds; where was it seen, in dry woods, swamp, pasture, etc.; date that it was seen. With this data you can identify any bird, but usually you will need only to glance over the pictures in the Bird Guide to find the name of the bird you have seen.

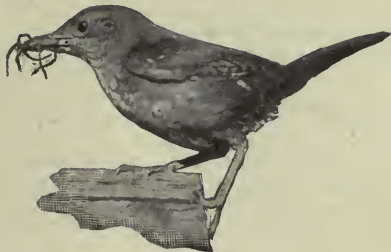
I should advise anyone by all means to make a complete local list of all the birds that are found in their neighborhood, but of far greater value than the simple recording of the different species seen on each walk, will be the making a special study of one or more birds, even though they be common ones. While,

of course, noting any peculiarities of any bird that you may see, select some particular one or ones and find out all you can about it. The following most necessary points are cited to aid the student in making observations:—Date of arrival and whether in large flocks, pairs or singly; where found most abundantly; upon what do they feed at the different seasons; what are their songs and calls at different seasons; when and where do they make their nests; of what are they made and by which bird or both; how long does it take, and when is the first and last egg laid; how long does it take them to hatch, and do both birds or only one incubate them; upon what are the young fed at different ages; how long do they remain in the nest, and do they return after once leaving; how long before they are able to feed themselves, and do they remain with their parents until they migrate. These and other notes that will suggest themselves, will furnish interesting and valuable instruction during your leisure time.



TOPOGRAPHY OF A BIRD

BIRD GUIDE



PART 2

Land Birds East of the Rockies

The numbers and names used in this book are those adopted by the American Ornithologists' Union, and are known both in this country and abroad. The lengths given are averages; our small birds often vary considerably and may be found either slightly larger or smaller than those quoted.

On some of the pages a number of sub-species are mentioned. Sub-species often cause confusion, because they are usually very similar to the original; they can best be identified by the locality in which they are found.

Of course the writing of birds' songs is an impossibility, but wherever I have thought it might prove of assistance, I have given a crude imitation of what it sounds like to me. The nests and eggs are described, as they often lead to the identity of a bird. We would suggest that you neatly, and with ink, make a cross against the name of each bird that you see in your locality, and also that you write at the top of the page, the date of the arrival and departure of each bird as you note it; these dates vary so much in different localities that we have not attempted to give them.

As many will not wish to soil their books, we would suggest that they have a leather covered copy for the library and a cloth one for pocket use.



CAROLINA PAROQUET.

382. *Conuropsis carolinensis*. 12½ inches.

Adults have the fore part of the head orange, while young birds have the head entirely green, with only a trifle orange on the forehead.

With the exception of the Thick-billed Parrot which is very rarely found in southern Arizona, these are the only members of the Parrot family in the United States. They were once abundant throughout the southern states, but are now nearly extinct. They are found in heavily timbered regions, usually along the banks of streams, where they feed upon seeds and berries.

Note.—A sharp, rolling “kr-r-r-r.” (Chapman.)

Nest.—Supposed to be in hollow trees, where they lay from three to five white eggs (1.31 x 1.06).

Range.—Formerly the southern states, but now confined to the interior of Florida and, possibly, Indian Territory.





GROOVE-BILLED ANI.

384. *Crotophaga sulcirostris*. 14½ inches.

Anis are fairly abundant in southern Texas along the Rio Grande. Like all the members of the family of Cuckoos, their nesting habits are very irregular; oftentimes a number of them will unite and form one large nest in a bush, in which all deposit their eggs. The eggs are bluish-green, covered with a white chalky deposit (1.25 x .95).

ROAD-RUNNER.

385. *Geococcyx californianus*. 23 inches.

In the southwestern portions of our country, from Texas and Kansas west to the Pacific, these curious birds are commonly found. They are locally known as "Ground Cuckoos," "Snake-killers," "Chaparral Cocks." They are very fond of lizards and small snakes, which form a large part of their fare. They are very fleet runners, but fly only indifferently well. Their four to ten white eggs are laid on frail nests of twigs, in bushes.

MANGROVE CUCKOO.

386. *Coccyzus minor*. 13 inches.

These buff-breasted Cuckoos are natives of Cuba and Central America, being found in southern Florida only during the summer. The habits of all the American Cuckoos are practically identical and their notes or songs can only be distinguished from one another by long familiarity.

YELLOW-BILLED CUCKOO.

387. *Coccyzus americanus*. 12¼ inches.

This species is the most abundant in the southern part of its range, while the Black-bill is the most common in the North. Notice that the lower mandible is yellowish, that the wings are largely rufous, and that the outer tail feathers are black, with broad white tips, these points readily distinguishing this species from the next. The eggs of this species are large and paler colored than the next (1.20 x .90). They breed from the Gulf to southern Canada and winter in Central America.





BLACK-BILLED CUCKOO.

388. *Coccyzus erythrophthalmus*. $11\frac{3}{4}$ inches.

Cuckoos are of quiet and retiring habits, but on account of their mournful notes are often regarded with awe by the superstitious. They are one of our most valuable birds, for they consume quantities of the fuzzy Tent Caterpillars, that are so destructive.

Their short, rounded wings and long, broad tails give them a silent, gliding flight that often enables them to escape unnoticed.

Note.—A low guttural croak, “cow,” “cow,” etc., repeated a great many times and sometimes varied with “cow-uh,” also repeated many times.

Nest.—Flat, shabby platforms of twigs placed at low elevations in thickets or on the lower branches of trees. The four greenish-blue eggs are $1.15 \times .85$.

Range.—United States and southern Canada, east of the Rockies. Arrives in May and leaves in September for northern South America.

BELTED KINGFISHER.

390. *Ceryle alcyon*. 13 inches.

The male has the breast band and sides blue-gray, like the back, while the female has chestnut-colored sides and breast band in addition to a gray band.

Kingfishers may be found about ponds, lakes, rivers, the sea-side or small creeks; anywhere that small fish may be obtained. Their food is entirely of fish that they catch by diving for, from their perches on dead branches, or by hovering over the water until the fish are in proper positions and then plunging after them.

Note.—A very loud, harsh rattle, easily heard half a mile away on a clear, quiet day.

Nest.—At the end of a two or three-foot tunnel in a sand bank. The tunnel terminates in an enlarged chamber where the five to eight glossy white eggs (1.35 x 1.05) are laid upon the sand.

Range.—Whole of North America north to the Arctic regions. Winters from southern United States southward.





TEXAS KINGFISHER.

391. *Ceryle americana septentrionalis*. 8 inches.

The adult male of this species has a rufous breast band, while the female has only a greenish one.

The Texan Green Kingfisher is the smallest member of the family found within our borders. You will notice that all Kingfishers have the two outer toes on each foot joined together for about two-thirds of their length. This has been brought about through their habit of excavating in sand banks for nesting sites. It is quite probable that at some future distant period the three forward toes may be connected for their whole length, so as to give them a still more perfect shovel.

Note.—A rattling cry, more shrill than that of the Belted Kingfisher.

Nest.—The four to six glossy white eggs are laid on the sand at the end of a horizontal burrow in a bank, the end being enlarged into a chamber sufficiently large to allow the parent bird to turn about.

Range.—Southwestern border of the United States, from southern Texas to Arizona.

IVORY-BILLED WOODPECKER.

392. *Campephilus principalis*. 20 inches.

Male with a scarlet crest, female with a black one.

These are the largest and most rare of the Woodpeckers found within our borders. Their decline in numbers is due, to a certain extent, to the killing of them because of their size and beauty, but chiefly on account of cutting off of a great deal of the heavy timber where they nest. They are very powerful birds and often scale the bark off the greater portion of a tree in their search for insects and grubs, while they will bore into the heart of a living tree to make their home.

Note.—A shrill two-syllabled shriek or whistle.

Nest.—In holes of large trees in impenetrable swamps. On the chips at the bottom of the cavity, they lay from three to six glossy, pure white eggs (1.45 x 1.00).

Range.—Formerly the South Atlantic States and west to Texas and Indian Territory, but now confined to a few isolated portions of Florida and, possibly, Indian Territory.





HAIRY WOODPECKER.

393. *Dryobates villosus*. 9 inches.

In summer these Woodpeckers are found in heavy woods, where they breed, but in winter they are often seen on trees about houses, even in the larger cities, hunting in all the crevices of the bark in the hope of locating the larva of some insect. They are usually more shy than the Downy, from which they can readily be distinguished by their much larger size.

Note.—A sharp whistled “peenk.”

Nest.—In holes in trees in deep woods; three to six glossy white eggs (.95 x .70).

Range.—Eastern U. S. from Canada to North Carolina.

Sub-species.—393a. Northern Hairy Woodpecker (*leucomelas*), British America and Alaska; larger.—393b. Southern Hairy Woodpecker (*audubonii*), South Atlantic and Gulf States; smaller. The difference between these birds is small and chiefly in size, although the southern bird often has fewer white marks on the wing coverts. Other sub-species are found west of the Rockies.

SOUTHERN DOWNY WOODPECKER.

394. *Dryobates pubescens*. 6 inches.

The male has a red nuchal patch while the female has none. Downies are one of the commonest of our Woodpeckers and are usually tame, allowing a very close approach before flying. They remain in orchards and open woods throughout the summer, and in winter often come to the windows in places where they are fed, as many people are in the habit of doing now. Their food, as does that of nearly all the Woodpeckers, consists entirely of insects, grubs and larvæ.

Note.—A sharp “peenk” or a rapid series of the same note, usually not as loud as that of the Hairy Woodpecker.

Nest.—In holes in trees in orchards or woods, the four to six white eggs being laid on the bare wood; size .75 x .60.

Range.—South Atlantic and Gulf States.

Sub-species.—Northern Downy Woodpecker (*medianus*), North America east of the Rockies and north of the Carolinas. This variety is slightly larger than the southern; others are found west of the Rockies.





RED-COCKADED WOODPECKER.

395. *Dryobates borealis*. $8\frac{1}{4}$ inches.

Male with a small patch of scarlet on both sides of the head; female without. The actions and habits are very similar to those of the Downy. The birds can readily be identified at a distance by the cross-barring of white on the back. Their notes are harsher than those of the Downy and have more of the nasal quality, like those of the nuthatches.

Range.—Southeastern United States, west to Texas and north to Virginia.

TEXAN WOODPECKER.

396. *Dryobates scalaris bairdi*. $7\frac{1}{4}$ inches.

On account of its numerous cross bars, this species is often known as the Ladder-backed Woodpecker. They are quite similar to the Nuttall Woodpecker, that is found on the Pacific Coast, but differ in having the underparts brownish-white instead of white, and the outer tail feathers heavily barred. They are found from Texas to southeastern California and north to Colorado.

ARCTIC THREE-TOED WOODPECKER.

400. *Picoides arcticus*. 9.5 inches.

Back glossy black, without any white. Only three toes, two in front and one behind. This is the most common of the two species found within the United States. They breed from the northern edge of the Union north to the limit of trees.

AMERICAN THREE-TOED WOODPECKER.

401. *Picoides americanus*. $8\frac{3}{4}$ inches.

Back barred with white; outer tail feathers barred with black; yellow crown patch on male mixed with white. Except on some of the higher mountain ranges these birds appear in the United States only during winter. They are very hardy and commence nesting before snow leaves.

Note.—A shrill, loud, nasal shriek, sometimes repeated.

Nest.—In holes of trees as is usual with Woodpeckers. The white eggs measure .95 x .70.





YELLOW-BELLIED SAPSUCKER.

402. *Sphyrapicus varius*. 8½ inches.

Male with a scarlet crown and throat; female with a scarlet crown and white throat; young with the head and neck mottled gray and white, with a few scarlet feathers.

This species has gained some ill-repute because of its supposed habit of boring through the bark of trees in order to get at the sap, and thus killing the trees. However, I very much doubt if they do any appreciable damage in this manner. I have watched a great many of them in the spring and fall and have clearly seen that they were feeding upon insects in the same way as the Downy.

Note.—A loud whining “whee,” and other harsh calls similar to the scream of a Blue Jay.

Nest.—In holes in trees, at heights from the ground varying from eight to fifty feet. Late in May they lay from four to seven white eggs (.85 x .60).

Range.—U. S. east of the Rockies, breeding from Virginia and Missouri to Hudson Bay, and wintering in southern U. S.

PILEATED WOODPECKER.

405. *Phlæotomus pileatus*. 17 inches.

Male with a scarlet crown and crest, and a red moustache or mark extending back from the bill; female with scarlet crest but a blackish forehead and no moustache.

Next to the Ivory-bills, these are the largest of our Woodpeckers. Like that species it is very destructive to trees in its search for food. While engaged in this pursuit, they often drill large holes several inches into sound wood to reach the object of their search. Like all the Woodpeckers, they delight in playing tattoos on dry, resonant limbs with their bills.

Note.—A whistled “cuk,” “cuk,” “cuk,” slowly repeated many times, also a “wick-up” repeated several times.

Nest.—In large cavities in trees, in which they lay four to six white eggs (1.30 x 1.00).

Range.—Southern United States. The Northern Pileated Woodpecker (*abieticola*) is locally found in temperate N. A.





RED-HEADED WOODPECKER.

406. *Melanerpes erythrocephalus*. $9\frac{3}{4}$ inches.

Adults with entire head and breast red; young with a gray head and back, streaked with darker.

This very handsome species is common and very well known in the Middle and Central States. They are the ruffians of the family, very noisy and quarrelsome. One of their worst traits is the devouring of the eggs and young of other birds. To partially offset this, they also eat insects and grubs and a great deal of fruit.

Note.—A loud, whining “charr,” “charr,” besides numerous other calls and imitations.

Nest.—Holes in trees in woods, orchards or along roadsides and also in fence posts or telegraph poles. In May and June they lay four to six glossy white eggs (1.00 x .75).

Range.—United States east of the Rockies, breeding from the Gulf to New York and Minnesota. Winters in southern United States.

RED-BELLIED WOODPECKER.

409. *Centurus carolinus*. 9½ inches.

Male with whole top of head and back of neck red; female with forehead and hind head red but crown gray. Both sexes have the center of the belly reddish, and have red eyes.

Like the Red-heads, these birds are noisy, but they have few of the bad qualities of the others. Besides the regular Woodpecker fare, they get a great many ants and beetles from the ground and fruit and acorns from the trees. They are said to also be fond of orange juice. In most of their range they are regarded as rather shy and retiring birds.

Note.—A sharp, resonant “cha,” “cha,” “cha,” repeated.

Nest.—In holes bored usually in live trees and at any height from the ground. Their five or six eggs are glossy white (1.00 x .75).

Range.—United States east of the Plains, breeding from Florida and Texas to southern Pennsylvania and Minnesota. Winters along the Gulf coast; occasionally strays to Massachusetts.





FLICKER.

412. *Colaptes auratus*. 13 inches.

Male with a black moustache mark; female without, although young females in the first plumage show some black.

These birds are very often known as "Golden-winged Woodpeckers," "High-holes" and about a hundred other names in different localities. Flickers are found commonly in woods, orchards or trees by the roadside; on pleasant days their rapidly uttered, rolling whistle may be heard at all hours of the day.

Note.—A rapidly repeated whistle, "cuk," "cuk," "cuk"; an emphatic "quit-u," "quit-u," and several others of a similar nature.

Nest.—A cavity in a tree, at any distance from the ground. The white eggs usually vary in number from five to ten, but they have been known to lay as many as seventy-one, where an egg was taken from the nest each day.

Range.—South Atlantic States. The Northern Flicker (*luteus*) is found in North America east of the Rocky Mountains.

RED-SHAFTED FLICKER.

413. *Colaptes cafer collaris*. 13 inches.

Crown brown and throat gray, these colors being just reversed from those of the common Flicker.

The male is distinguished by a red moustache mark, which the female lacks. The typical male Red-shafted Flicker lacks the red crescent on the back of the head, but it is often present on individuals, as there are numerous hybrids between this species and the preceding. Flickers are more terrestrial in their habits than are any others of the family; their food consists largely of ants which they get from the ground.

Note.—Same as those of the last; both species often utter a purring whistle when they are startled from the ground.

Nest.—The nesting habits are identical with those of the last and the eggs cannot be distinguished.

Range.—From the eastern slope of the Rocky Mountains to the Pacific.





CHUCK-WILL'S-WIDOW.

416. *Antrostomus carolinensis*. 12 inches.

Male with the end half of the outer tail feathers white, and the edge of the outer vanes rusty; female with no white ends to the feathers. Birds of this family have small bills, but extremely large mouths adapted to catching night-flying moths and other insects. They remain sleeping during the day, either perched lengthwise on a limb or concealed beside a stump or rock on the ground, their colors harmonizing with the surroundings in either case. They fly, of their own accord, only at dusk or in the early morning. This species, which is much the largest of our Goatsuckers, is known to, at times, devour small birds, as such have been found in their stomachs.

Note.—A loudly whistled and repeated “chuck-will’s-widow.”

Nest.—None, the two eggs being laid on the ground or dead leaves in underbrush. Eggs white, blotched with gray and lavender (1.40 x 1.00).

Range.—South Atlantic and Gulf States, breeding north to Virginia and Missouri, west to Texas.

WHIP-POOR-WILL.

417. *Antrostomus vociferus*. $9\frac{3}{4}$ inches.

Male with broad white tips to outer tail feathers; female with narrow buffy tips. These birds are often confounded with the Nighthawk, but are very easily distinguished by the long bristles from base of bill, the black chin, the chestnut and black barred wing feathers and the rounded tail. Whip-poor-wills are more nocturnal than Nighthawks and on moonlight nights continue the whistled repetition of their name throughout the night. They capture and devour a great many of the large-bodied moths that are found in the woods, but are never seen flying over cities like Nighthawks.

Note.—An emphatically whistled repetition of “whip-poor-will,” “whip-poor-will.”

Nest.—In June they lay two grayish or creamy white eggs ($1.15 \times .85$), mottled with pale brown, gray and lilac. These are deposited on the ground in woods.

Range.—East of the Plains, breeding from the Gulf to Manitoba and New Brunswick. Winters south of the United States.





POOR-WILL.

418. *Phalaenoptilus nuttallii*. 7½ inches.

The female of this beautiful little Night-jar differs from the male only in having narrow buffy tips to the outer tail feathers instead of broad white ones. Like all the members of this family these birds are dusk fliers, remaining at rest on the ground in daylight. Their frosted gray plumage harmonizes so perfectly with their surroundings that it is almost impossible to see them. Their eggs are nearly immaculate, but usually show traces of the lavender blotches that mark others of the family. Their call is a mournful "poor-will-ee." They are found from the Plains to the Pacific, but are not common east of the Rockies.

MERRILL PARAQUE.

419. *Nyctidromus albicollis merrilli*. 13 inches.

As usual with birds of this family, sexual difference in the plumage occurs chiefly on the tips of the outer tail feathers. These birds are common in the Lower Rio Grande Valley in Texas. Their eggs differ from any of the preceding in having a salmon-colored ground.

NIGHTHAWK.

420. *Chordeiles virginianus*. 10 inches.

Male with white throat and white band across tail; female with rusty throat and no white on tail. Notice that the Nighthawk has a forked tail and white band across the wings, thus being readily distinguished at a distance from the Whip-poor-will.

Note.—A loud nasal "peent."

Nest.—None, the two mottled gray and white eggs being laid on bare rocks in pastures, on the ground or under brush, or on gravel roofs in cities; size 1.20 x .85.

Range.—United States east of the Plains, breeding from Florida to Labrador; winters south of United States. Three sub-species occur:—420a. Western Nighthawk (*henryi*), west of the Plains; 420b. Florida Nighthawk (*chapmani*); 420c. Sennett Nighthawk (*sennetti*), a pale race found on the Plains north to Saskatchewan.

TEXAN NIGHTHAWK

421. *Chordeiles acutipennis texensis*.

This species is found in southern Texas and New Mexico. It differs from the last in having the primaries spotted with rusty, like those of the whip-poor-will.





CHIMNEY SWIFT.

423. *Chaetura pelagica*. $5\frac{1}{2}$ inches.

Unused chimneys of old dwellings make favorite roosting and nesting places for these smoke-colored birds. They originally dwelt in hollow trees until the advent of man furnished more convenient places, although we would scarcely consider the soot-lined brick surface as good as a clean hollow tree. Spines on the end of each tail feather enable them to hang to their upright walls, and to slowly hitch their way to the outer world. Throughout the day numbers of them are scouring the air for their fare of insects, but as night approaches, they return to the chimney.

Note.—A continuous and not unmusical twittering uttered while on the wing and also within the depths of the chimney.

Nest.—Made of small sticks or twigs glued to the sides of a chimney and each other by the bird's saliva. The three to five white eggs are long and narrow (.75 x .50).

Range.—N. A. east of the Plains, breeding from Florida to Labrador; winters south of U. S.

WHITE-THROATED SWIFT.

425. *Aeronautes melanoleucus*. 6½ inches.

This beautiful swift is one of the most graceful of winged creatures. Its flight is extremely rapid and its evolutions remarkable. They nest in communities, thousands of them often congregating about the tops of inaccessible cliffs, in the crevices of which they make their homes. No bird has a more appropriate generic name than this species—"aeronautes," meaning sailor of the air; he is a sailor of the air and a complete master of the art.

Note.—Loud, shrill twittering, uttered chiefly while on the wing.

Nest.—Placed at the end of burrows in earthy cliffs or as far back as possible between crevices in rocks; usually in inaccessible places and as high as possible from the ground. It is a saucer-shaped structure made of vegetable materials cemented together with saliva, and lined with feathers. The four white eggs measure .87 x .52.

Range.—From the eastern foothills of the Rockies to the Pacific; north to Montana and northern California.





RUBY-THROATED HUMMINGBIRD.

428. *Trochilus colubris*. 3½ inches.

This little gem is the only one of the family found within the territory included in this book. Owners of flower gardens have the best of opportunities to study these winged jewels, on their many trips to and fro for honey, or the insects that are also attracted thereby. With whirring wings, they remain suspended before a blossom, then—buzz—and they are examining the next, with bill lost within the sweet depths. Their temper is all out of proportion to their size, for they will dash at an intruder about their moss-covered home as though they would pierce him like a bullet. Their angry twitters and squeaks are amusing and surprising, as are their excitable actions.

Nest.—A most beautiful creation of plant fibres and cobwebs adorned with lichens and resembling a little tuft of moss upon the bough on which it is placed. In June two tiny white eggs are laid (.50 x .35).

Range.—N. A. east of the Rockies, breeding from the Gulf north to Labrador and Hudson Bay; winters south of U. S.

SCISSOR-TAILED FLYCATCHER.

443. *Muscivora forficata*. 14½ inches.

This pretty creature is the most graceful in appearance of the Flycatcher family, if not of the whole order of perching birds. In the southwest it is frequently known as the "Texan Bird of Paradise." Its habits are very much like those of the Kingbird; as it gracefully swings through the air in pursuit of insects, it frequently opens and shuts its scissor-like tail. They are usually found in open country or on the borders of woodland. They rarely alight on the ground, for their long tails make them walk very awkwardly, but when they are a-wing they are the embodiment of grace.

Note.—A shrill "tzip," "tzip," similar to notes of Kingbirds.

Nest.—Quite large; built of all kinds of trash, such as twigs, grasses, paper, rags, string, etc.; placed in any kind of a tree or bush and at any height. The four or five creamy white eggs are spotted with brown (.90 x .67).

Range.—Breeds from Texas north to Kansas; winters south of U. S.





KINGBIRD.

444. *Tyrannus tyrannus*. 8½ inches.

Adults with a concealed orange crown patch; young with none. From the time of their arrival in May until they leave us in August, Kingbirds are much in evidence in farmyards and orchards. They are one of the most noisy birds, always quarreling about something, and usually coming off victorious in whatever they may undertake. Crows are objects of hatred to them, and they always drive them from the neighborhood, vigorously dashing upon and picking them from above and often following them for a great distance. They have their favorite perches from which they watch for insects, usually a dead branch, a fence post, or a tall stalk in the field.

Note.—A series of shrill, harsh sounds like “thsee,” “thsee.”

Nest.—Of sticks, rootlets, grass, string, etc., placed in orchard trees or open woods at any height. Four or five creamy white eggs, specked and spotted with reddish brown (.95 x .70).

Range.—Breeds from the Gulf to southern Canada.

GRAY KINGBIRD.

445. *Tyrannus dominicensis*. 9 inches.

Differs from the common Kingbird in being larger and gray above; has black ear coverts, and no white tip to tail.

Like the last species, these are very noisy and pugnacious, and rule their domains with the hand of a tyrant. After they have mated they quarrel very little among themselves, and often several may use the same lookout twig from which to dash after passing flies or moths.

Note.—A rapidly repeated, shrill shriek: “pe-che-ri,” “pe-che-ri.”

Nest.—Rather more shabbily built but of the same materials as those used by our common Kingbird. Placed in all kinds of trees, but more often in mangroves, where they are commonly found. Three to five pinkish-white eggs, profusely blotched with brown (1.00 x .72).

Range.—West Indies and Florida, Georgia and South Carolina. Winters in the West Indies and Central America.





ARKANSAS KINGBIRD.

447. *Tyrannus verticalis*. 9 inches.

These tyrant flycatchers are abundant west of the Mississippi, where they are often, and perhaps more aptly, known as the Western Kingbirds. If possible, they are even more noisy and pugnacious than the eastern species. They have a great variety of notes, all rather unpleasant to the ear. Their food, like that of the other Kingbirds, consists of moths, butterflies, ants, grasshoppers, crickets, etc., etc., most of which they catch on the wing.

Note.—A shrill, metallic squeak; a low twittering and a harsh, discordant scream, all impossible to print.

Nest.—Quite large and clumsily made of paper, rags, twigs, rootlets and grasses, placed in all sorts of locations, frequently in eave troughs or above windows. The eggs are creamy white, spotted with brown (.95 x .65).

Range.—Western United States, breeding from Texas to Manitoba and west to the Pacific; winters south of U. S.

DERBY FLYCATCHER.

449. *Pitangus derbianus*. $10\frac{1}{2}$ inches.

This imposing flycatcher is the largest of the family that is found in North America. As usual with members of the family it is of a quarrelsome disposition, but hardly so much so as either the common or Arkansas Kingbirds. Their large, heavy bodies render them considerably less active than the smaller members of the family. On account of the size of the head and bill, they are often known as Bull-headed Flycatchers.

Notes.—Very varied, but similar in character to those of the eastern Kingbird.

Nest.—It is said to build its nest at low elevations in trees or in thorny bushes—a large structure of twigs and rubbish with an entrance on the side. The three to five eggs have a cream-colored ground and are prominently specked about the large end with brown ($1.15 \times .82$).

Range.—A Mexican species that is fairly common in the Lower Rio Grande Valley in Texas.





CRESTED FLYCATCHER.

452. *Myiarchus crinitus*. 9 inches.

These large flycatchers are very noisy in the mating season, but their notes are rather more musical than those of the Kingbirds. They appear to be of a quarrelsome disposition, for rarely will more than one pair be found in a single piece of woods. They also frequently chase smaller birds, but never attack larger ones, as do the Kingbirds. They have a queer habit of placing a piece of snakeskin in the hole in which their nest is located, for what purpose, unless to scare away intruders, is not known, but it seems to be a universal practice.

Notes.—A clear whistle, “wit-whit,” “wit-whit,” repeated several times. This is the most common call; they have many others less musical.

Nest.—Of straw, etc., in holes of dead limbs. Eggs four to six in number; buffy white, streaked and blotched with brown.

Range.—Eastern N. A. from the Plains to the Atlantic, breeding north to southern Canada.

PHOEBE.

456. *Sayornis phæbe*. 7 inches.

A Phœbe is always associated, in my mind, with old bridges and bubbling brooks. Nearly every bridge which is at all adapted for the purpose has its Phœbe home beneath it, to which the same pair of birds will return year after year, sometimes building a new nest, sometimes repairing the old. They seem to be of a nervous temperament, for, as they sit upon their usual lookout perch, their tails are continually twitching as though in anticipation of the insects that are sure to pass sooner or later.

Note.—A jerky, emphatic “phœ-be,” with the accent on the second syllable, and still further accented by a vigorous flirt of the tail.

Nest.—Of mud, grasses and moss, plastered to the sides of beams or logs under bridges, culverts or barns. In May or June four or five white eggs are laid (.75 x .55).

Range.—N. A. east of the Rockies, north to southern Canada; winters in southern U. S. and southward.





OLIVE-SIDED FLYCATCHER.

459. *Nuttallornis borealis*. $7\frac{1}{2}$ inches.

These birds can scarcely be called common anywhere, but single pairs of them may be found, in their breeding range, in suitable pieces of woodland. I have always found them in dead pine swamps, where the trees were covered with hanging moss, making it very difficult to locate their small nests. Their peculiar, loud, clear whistle can be heard for a long distance and serves as a guide-board to their location.

Note.—A loud, clear whistle, “whip-wheeu,” the first syllable short and sharp, the last long and drawn out into a plaintive ending.

Nest.—A small structure for the size of the bird, made of twigs and mosses firmly anchored to horizontal limbs or forks. Three to five eggs are laid; a rich creamy ground, spotted about the large end with brown and lavender (.85 x .65).

Range.—N. A., breeding from the latitude of Massachusetts, and farther south in mountainous regions, north to Labrador and Alaska.

WOOD PEWEE.

461. *Myiochanes virens*. 6½ inches.

In life, the Pewee can best be distinguished from the larger Phoebe, with which it is often confounded, by its sad, plaintive "pe-ah-wee," "pee-wee," which is strikingly different from the brusque call of the Phoebe. Pewees are also found more in high, dry woods where they build their little moss-covered homes on horizontal boughs at quite a height from the ground. Like the other flycatchers they always perch on dead twigs, where their view is as little obstructed as possible.

Note.—A clear, plaintive whistle, "pe-ah-whee," "pee-wee."

Nest.—One of the most exquisite of bird creations, composed of plant fibres quilted together and ornamented with rock lichens; situated at varying heights on horizontal limbs, preferably oak or chestnut, and sometimes in apple trees in orchards. Eggs creamy white, specked with brown (.80 x .55).

Range.—U. S. from the Plains to the Atlantic and north to Manitoba and New Brunswick; winters in Central America.





YELLOW-BELLIED FLYCATCHER.

463. *Empidonax flaviventris*. 5½ inches.

These strange little Flycatchers are found in swamps such as those usually frequented by Olive-sided Flycatchers and Parula Warblers. They are one of the few of the family to nest on the ground or very close to it. Their homes are made in the moss-covered mounds or stumps found in these swamps.

Range.—N. A. east of the Plains north to Labrador, breeding from northern U. S. northward.

GREEN-CRESTED OR ACADIAN FLYCATCHER.

465. *Empidonax virescens*. 5½ inches.

This bird is very similar to the last, but the lower mandible is light, and the throat and belly white. Their favorite resorts are shady woods not far from water. Here they nest in the outer branches of bushes or trees at heights of from four to twenty feet from the ground. The nests are shallow and composed of twigs and moss. Eggs creamy with brown spots.

Range.—U. S. east of Plains, breeding from the Gulf to New England and Manitoba; winters in the Tropics.

ALDER FLYCATCHER.

466a. *Empidonas trailli alnorum*. 6 inches.

This species is very similar to, but larger, than the well-known Least Flycatcher or Chebec. They are found in swampy pastures or around the edges of ponds or lakes, where they nest in low bushes.

Range.—U. S. east of the Mississippi, breeding from New York to New Brunswick.

LEAST FLYCATCHER.

467. *Empidonax minimus*. 5½ inches.

Smaller than the last and with the tail slightly forked. Common everywhere in orchards, swamps or along roadsides. They are very often known by the name of "Chebec," because their notes resemble that word. Their nests are placed in upright forks of any kind of trees or bushes; they are made of plant fibres and grasses closely felted together. The eggs range from three to five in number and are creamy white, without markings; size .65 x .50.

Range.—N. A. east of the Rockies, breeding from middle U. S. north to New Brunswick and Manitoba.





VERMILION FLYCATCHER.

471. *Pyrocephalus rubineus mexicanus*. 6 inches.

Female with only a slight tinge of pink, where the male is brilliant vermillion.

This is the most gorgeously plumaged species of the American Flycatchers. It has all the active traits of the family and, to those who are only accustomed to the demure gray plumage of most eastern species, the first sight of this one as he dashes after an insect is a sight never to be forgotten.

Notes.—During the mating season the male often gives a twittering song while poised in the air, accompanying it by loud snapping of the mandibles.

Nest.—Saddled on limbs of trees at low elevations from the ground; composed of small twigs and vegetable fibres closely felted together and often adorned on the outside with lichens similar to the nests of the Wood Pewee. The four eggs are of a creamy-buff color with bold spots of brown and lilac, in a wreath around the large end (.73 x .54).

Range.—Mexican border of the United States, from Texas to Arizona.

HORNED LARK.

474. *Otocoris alpestris*. 7¾ inches.

This variety, which is larger than its sub-species, is only found in the U. S. in winter, but several of the sub-species are residents in our limits. During the mating season they have a sweet song that is uttered on the wing, like that of the Bobolink.

Notes.—Alarm note and call a whistled “tseet,” “tseet”; song a low, sweet and continued warble.

Nest.—A hollow in the ground lined with grass; placed in fields and usually partially concealed by an overhanging sod or stone. The three to five eggs have a grayish ground color and are profusely specked and blotched with gray and brownish (.85 x .60).

Range.—Breeds in Labrador and about Hudson Bay; south in winter to South Carolina and Illinois.

Sub-species.—474b. Prairie Horned Lark (*praticola*). A paler form usually with the line over the eye white, found in the Mississippi Valley. 474c. Desert Horned Lark (*leucolæma*). Paler and less distinctly streaked above than the Prairie; found west of the Mississippi and north to Alberta.





AMERICAN MAGPIE.

475. *Pica pica hudsonia*. 20 inches.

This handsome member of the Crow family is sure to attract the attention of all who may see him. He is very pert in all his actions, both in trees and on the ground, and is always ready for mischief. In a high wind their long tail often makes traveling a laborious operation for them, and at such times they usually remain quite quiet. They are very impudent and always on the lookout for something to steal; they are also very noisy and forever scolding and chattering among themselves.

Notes.—A loud, harsh “cack,” “cack,” and an endless variety of whistles and imitations.

Nest.—A large, globular heap of sticks placed in bushes or trees from four to fifty feet from the ground. The entrance to the nest is on one side and the interior is made of grass and mud. The four to six eggs are white, thickly specked with yellowish brown (1.25 x .90).

Range.—Western North America, east to the Plains and north to Alaska; resident.

BLUE JAY.

477. *Cyanocitta cristata*. 11½ inches.

These are one of the best known and most beautiful birds that we have, but, unfortunately, they have a very bad reputation. They often rob other birds of their eggs and young as well as food and nesting material. They are very active birds and are always engaged in gathering food, usually acorns or other nuts, and hiding them away for future use.

Notes.—A two-syllabled whistle or a harsh, discordant scream. Besides these two common notes they make an endless variety of sounds mimicking other birds.

Nest.—Of twigs and sticks in bushes or low trees, preferably young pines. The four eggs are pale greenish blue specked with brown (1.10 x .80).

Range.—N. A. east of the Rockies from the Gulf to Labrador, resident in the U. S. The Florida Blue Jay (*florincola*) is smaller and has less white on wings and tail.





FLORIDA JAY.

479. *Aphelocoma cyanca*. 11½ inches.

This Jay is locally distributed chiefly in the southern parts of Florida, being found principally in scrub oaks. Like the Blue Jay, their food consists of animal matter and some seeds, berries and acorns. Their habits are very similar to those of the northern bird and their calls resemble those of our bird, too. They are rather slow in flight and pass a great deal of their time upon the ground.

Notes.—A “jay,” “jay,” similar to that of the Blue Jay, and a great variety of other calls.

Nest.—In the latter part of March and in April they build their flat nests of twigs, usually in bushes or scrub oaks, and lay three or four greenish-blue eggs, with brown spots; size 1.05 x .80.

Range.—Middle and southern portions of Florida, chiefly along the coasts.

GREEN JAY.

483. *Xanthoura luxuosa glaucescens*. 12 inches.

These Jays are very beautiful, and we are sorry to have to admit that, like all the other members of the family, they are merciless in their treatment of smaller birds. During the summer their diet consists of raw eggs with young birds "on the side," or vice versa; later they live upon nuts, berries, insects; in fact, anything that is edible.

Notes.—Practically unlimited, being imitations of those of most of the birds in the vicinity.

Nest.—Not easily found, as it is usually concealed in dense thickets. The nests are like those of other Jays, loosely made of twigs and lined with black rootlets. The four eggs that are laid in May have a grayish ground color and are thickly spotted with several shades of brown and lilac. They measure 1.05 x .80.

Range.—Fairly common in the Lower Rio Grande Valley in southern Texas.





CANADA JAY.

484. *Perisoreus canadensis*. 11½ inches.

These birds are well known to hunters, trappers and campers in the northern woods. They are great friends, especially of the lumbermen, as some of the pranks that they play serve to enliven an otherwise tedious day. They seem to be devoid of fear and enter camp and carry off everything, edible or not, that they can get hold of. They are called by guides and lumbermen by various names, such as Whiskey Jack, Moose Bird, etc.

Notes.—A harsh “ca-ca-ca,” and various other sounds.

Nest.—Usually in coniferous trees at low elevations; made of twigs, moss and feathers. The three or four eggs are gray, specked and spotted with darker (1.15 x .80). They nest early, usually before the snow begins to leave the ground and often when the mercury is below zero.

Range.—Eastern North America from northern United States northward. 484c. Labrador Jay (*nigricapillus*), which is found in Labrador, has the black on the hind head deeper and extending forward around the eye.

NORTHERN RAVEN.

486a. *Corvus corax principalis*. 25 inches.

The habits of all the ravens and crows are identical and are too well known to need mention. They are all very destructive to young birds and eggs. The Raven can be known by its large size, its very large bill and lanceolate feathers on the throat. They are found in the mountains from Georgia and on the coast from Maine northwards.

WHITE-NECKED RAVEN.

487. *Corvus cryptoleucus*. 18½ inches.

This species has the bases of the feathers on the back of the neck white. Found in southwestern United States.

AMERICAN CROW.

488. *Corvus americanus*. 19 inches.

The common Crow of North America, replaced in Florida by the very similar Florida Crow (*pascuus*).

FISH CROW.

490. *Corvus ossifragus*. 16 inches.

This small species is found on the Atlantic coast north to Massachusetts.





CLARKE NUTCRACKER.

491. *Nucifraga columbiana*. 12½ inches.

Clarke Crows are found abundantly in all coniferous forests on the higher mountains in their range. They are very peculiar birds, having some of the traits of Woodpeckers, but more of those of the Jays.

They are very active, very noisy and very inquisitive, sharing with the Rocky Mountain Jay the names of "Camp Robber," "Moose Bird," etc. They are great travellers and may, one season, be absent where they were abundant the preceding one.

Notes.—Various calls and imitations like those of all others of the Jay family.

Nest.—Of sticks, at high elevations on horizontal boughs of coniferous trees. The four eggs have a pale greenish-gray ground, thickly sprinkled with darker (1.25 x .92).

Range.—Mountains of western North America, casually east to Kansas.

STARLING.

493. *Sturnus vulgaris*. 8½ inches.

Plumage metallic green and purple, heavily spotted above and below with buffy or white.

These European birds were introduced into New York a number of years ago, and are now common there and spreading to other localities in Connecticut and about New York City. They live about the streets and in the parks, building their nests in crevices of buildings and especially in the framework of the elevated railroads of the city, and less often in trees. They lay from four to six pale-blue, unspotted eggs (1.15 x .85). How they will affect other bird life, in case they eventually become common throughout the country, is a matter of conjecture, but from what I have seen of them they are quarrelsome and are masters of the English Sparrow, and may continue their domineering tactics to the extent of driving more of our song birds from the cities.





BOBOLINK.

494. *Dolichonyx oryzivorus*. 7¼ inches.

Bobolinks are to be found in rich grass meadows, from whence their sweet, wild music is often borne to us by the breeze. While his mate is feeding in the grass or attending to their domestic affairs, Mr. Bobolink is usually to be found perched on the tip of a tree, weed stalk, or even on a tall blade of grass, if no other spot of vantage is available, singing while he stands guard to see that no enemies approach. He is a good watchman and it is a difficult matter to flush his mate from the nest, for she leaves at his first warning.

Song.—A wild, sweet, rippling repetition of his name with many additional trills and notes. Alarm note a harsh “chah” like that of the Blackbird.

Nest.—Of grasses in a hollow on the ground, in meadows. They lay four to six eggs with a white ground color, heavily spotted, clouded and blotched with brown (.85 x .62).

Range.—N. A. east of the Rockies, breeding from New Jersey and Kansas north to Manitoba and New Brunswick; winters in South America.

COWBIRD.

495. *Molothrus ater*. $7\frac{3}{4}$ inches.

Male glossy greenish black, with a brown head; female and young, dull gray.

Groups of these birds are often seen walking sedately about among the cows in the pasture, hence their name. They are the only birds that we have that neither make a nest of their own nor care for their young. The female slyly deposits her egg in the nest of a smaller bird when the owner is absent, leaving further care of it to its new owner. Warblers, Sparrows and Vireos seem to be most imposed upon in this manner.

Notes.—A low “chack,” and by the male a liquid, wiry squeak accompanied by a spreading of the wings and tail.

Range.—U. S., chiefly east of the Rockies, breeding from the Gulf to Manitoba and New Brunswick; winters in southern U. S. A sub-species, the Dwarf Cowbird (*obscurus*), is found in southwestern United States; it is slightly smaller.





YELLOW-HEADED BLACKBIRD.

497. *Xanthocephalus xanthocephalus*. 10 inches.

Male black, with head and breast bright yellow; female more brownish and with head paler and mixed with brown.

These handsome birds are common locally on the prairies, frequenting sloughs and extensive marshes and borders of lakes. They are very sociable birds and breed in large colonies, sometimes composed of thousands of birds.

Notes.—A harsh “chack,” and what is intended for a song, consisting of numerous, queer sounding squeaks, they being produced during seemingly painful contortions of the singer.

Nest.—Of rushes woven around upright canes over water, in ponds and sloughs. The nest is placed at from four inches to two feet from the water and is quite deep inside. The four to six eggs are grayish, profusely specked with pale brown (1.00 x .70).

Range.—U. S., chiefly west of the Mississippi, north to British Columbia and Hudson Bay; winters on southwestern border of the U. S.

RED-WINGED BLACKBIRD.

498. *Agelaius phœniceus*. 9½ inches.

Male black, with scarlet and buff shoulders; female brownish black above and streaked below. Nearly all our ponds or wet meadows have their pair or colony of Blackbirds.

Note.—A harsh cack; a pleasing liquid song, “conk-err-ee,” given with much bowing and spreading of the wings and tail.

Nest.—Usually at low elevations in bushes, in swamps or around the edges of ponds, or frequently on the ground or on hummocks in wet pastures. The nest is made of woven grasses and rushes, and is usually partially suspended from the rim when placed in bushes. The three to five eggs are bluish white, scrawled, chiefly around the large end, with blackish (1.00 x .70).

Range.—East of the Rockies, breeding north to Manitoba and New Brunswick; winters in southern U. S.

Sub-species.—498b. Bahaman Redwing (*bryanti*).
498c. Florida Redwing (*floridanus*).





MEADOWLARK.

501. *Sturnella magna*. 10¾ inches.

Meadowlarks are familiar friends of the hillside and meadow; their clear fife-like whistle is often heard, while they are perched on a fence-post or tree-top, as well as their sputtering alarm note when they fly up before us as we cross the field.

Song.—A clear, flute-like “tseeu-tseer,” and a rapid sputtering alarm note.

Nest.—Of grasses, on the ground in fields, usually partially arched over. Three to five white eggs specked with brown (1.10 x .80).

Range.—N. A. east of the Plains and north to southern Canada; winters from Massachusetts and Illinois southward.

Sub-species.—501.1. Western Meadowlark (*neglecta*). This race has the yellow on the throat extended on the sides; its song is much more brilliant and varied than the eastern bird. It is found from the Plains to the Pacific. 501c. Florida Meadowlark (*argutula*) is smaller and darker than the common.

AUDUBON ORIOLE.

503. *Icterus audubonii*. 9½ inches.

Within the United States, these large Orioles are found only in southern Texas. They are not uncommon there and are resident. Their notes are loud, mellow whistles like those of the other Orioles. Their nests are semi-pensile and usually placed in mesquite trees not more than ten or fifteen feet from the ground.

SCOTT ORIOLE.

504. *Icterus parisorum*. 8 inches.

These beautiful birds are found in southwestern United States, from California to western Texas.

They are said to sing more freely than other members of the family, but the song, while loud and clear, is of short duration. Their nests, which are semi-pensile, are often places in giant yucca trees, or in vines that are suspended from cacti. The three or four eggs are pale blue, scrawled and spotted with black and lavender (.95x.65).





HOODED ORIOLE.

505. *Icterus cucullatus sennetti*. 8 inches.

This very brilliantly plumaged Oriole is, perhaps, the most abundant of the family in southern Texas. It is not as shy a bird as the two preceding species and is more often found in the neighborhood of houses.

With the exception of a few kinds of fruits, their food consists almost entirely of insects; all the Orioles are regarded as among our most beneficial birds.

Notes.—A harsher and more grating whistle than that of most of the Orioles.

Nest.—Usually in bunches of hanging moss, being made by hollowing out and matting the moss together and lining it with finer wiry moss. Others are placed in yucca trees, such nests being made of the fiber of the tree. Eggs dull white, scrawled about the large end with black and lavender (.85 x .60).

Range.—Found only in southern Texas. A subspecies (*nelsoni*) is found in New Mexico, Arizona and southern California.

ORCHARD ORIOLE.

506. *Icterus spurius*. 7¼ inches.

Male chestnut and black; female dull yellowish and gray; young male, second year, like female, but with black face and throat. These Orioles are usually found in open country and, as their name suggests, have a preference for orchards. They are also found abundantly in shrubbery along streams and roadsides. They feed chiefly upon worms, caterpillars, beetles, grasshoppers, etc., and are one of the most beneficial birds that we have.

Song.—A rich, loud and rapid warble, cheery and pleasing but impossible to describe; a chattering note of alarm.

Nest.—A beautiful basket of grasses woven into a deeply cupped ball and situated in forks of trees or bushes; often they are made of green grasses. Four to six white eggs, specked, scrawled and spotted with black and brown (.80 x .55).

Range.—U. S. east of the Plains, breeding from the Gulf to Massachusetts and Michigan; winters in Central America.





BALTIMORE ORIOLE.

507. *Icterus galbula*. 7½ inches.

Male orange and black; female dull yellowish and gray.

They are sociable birds and seem to like the company of mankind, for their nests are, from choice, built as near as possible to houses, often being where they can be reached from windows. As they use a great deal of string in the construction of their nest, children often get amusement by placing bright-colored pieces of yarn where the birds will get them, and watch them weave them into their homes.

Song.—A clear, querulous, varied whistle or warble; call, a plaintive whistle.

Nest.—A pensile structure, often hanging eight or ten inches below the supporting rim, and swaying to and fro with every breeze. They lay five or six white eggs, curiously scrawled with blackish brown (.90 x .60).

Range.—N. A. east of the Rockies and breeding north to New Brunswick and Manitoba. Winters in Central America.

RUSTY BLACKBIRD.

510. *Scolecophagus carolinus*. 9½ inches.

Male glossy black; female grayish; both sexes in winter with most of the head and breast feathers tipped with rusty. In the United States we know these birds chiefly as emigrants; but a few of them remain to breed in the Northern parts. Their songs are rather squeaky efforts, but still not unmusical. These birds are found east of the Rockies.

BREWER BLACKBIRD.

510. *Scolecophagus cyanecephalus*. 10 inches.

Male with a glossy purplish head and greenish-black body; female grayish brown. This is the Western representative of the preceding; it is most abundant west of the Rockies, but is also found on the Plains. Its distribution is not so northerly and it nests commonly in its United States range. Their eggs are whitish, very profusely spotted and blotched with various shades of brown (1.x.75).





PURPLE GRACKLE.

511. *Quiscalus quiscula*. 12 inches.

Male with purple head and greenish back; female brownish gray. All the Grackles are very similar in appearance, the colors varying with different individuals of the same species. Their habits are alike, too, and I consider them one of the most destructive of our birds.

Notes.—A harsh “tchack,” and a squeaky song.

Nest.—Of sticks and twigs, usually in pines in the North and bushes in the South. Four eggs, pale bluish gray with black scrawls (1.10 x .80).

Range.—Eastern U. S., breeding north to Mass.

Sub-species.—511a. Florida Grackle (*aglæus*), slightly smaller. 511b. Bronzed Grackle (*æneus*, with a purple head and usually a brassy back. Eastern U. S., breeding north to Labrador and Manitoba.

BOAT-TAILED GRACKLE.

513. *Megaquiscalus major*. 15 inches.

Similar in color to the last but much larger, and having the same habits. Eggs also larger (1.25 x .95). Southeastern U. S. The Great-tailed Grackle (*macrourus*), found in Texas, is still larger.

EVENING GROSBEAK.

514. *Hesperiphona vespertina*. 8 inches.

Female marked like the male but much paler colored. As would be judged from the large bills that these birds have, their food consists almost entirely of seeds, with occasionally a few berries and perhaps insects. In certain localities they are not uncommon, but, except in winter, they are rare anywhere in the U. S. and east of the Mississippi they can only be regarded as accidental even in winter. They have been taken at least once in Massachusetts. In winter they usually travel about in small bands, visiting localities where the food supply is the most abundant.

Song.—A clear Robin-like whistle; call, a short whistle.

Nest.—A flat structure of twigs and rootlets placed at low elevations in trees or bushes. Four eggs, greenish white, spotted with brown (.90 x .65).

Range.—Breeds in mountains of western British America and northwestern U. S. South and east in winter to the Mississippi and rarely farther.





PINE GROSBEAK.

515. *Pinicola enucleator leucura*. 8½ inches.

Male rosy red; female gray and yellowish.

These pretty birds visit us every winter, coming from Canada and northern New England, where they are found in summer. They are very fearless birds and might almost be regarded as stupid; when they are feeding you can easily approach within a few feet of them, and they have often been caught in butterfly nets. They may, at times, be found in any kind of trees or woods, but they show a preference for small growth pines, where they feed upon the seeds and upon seeds of weeds that project above the snow.

Song.—A low sweet warble; call, a clear, repeated whistle.

Nest.—In coniferous trees, of twigs, rootlets and strips of bark; eggs three to four in number, greenish blue spotted with brown and lilac (1.00 x .70).

Range.—Breeds in eastern British America and northern New England; winters south to New York and Ohio. Several sub-species are found west of the Rockies.

PURPLE FINCH.

517. *Carpodacus purpureus*. 6¼ inches.

Male dull rosy red; female streaked brownish gray.

These beautiful songsters are common in the northern tier of states and in Canada. In spring the males are usually seen on, or heard from, tree tops in orchards or parks, giving forth their glad carols. They are especially musical in spring when the snow is just leaving the ground and the air is bracing. After family cares come upon them, they are quite silent, the male only occasionally indulging in a burst of song.

Song.—A loud, long-continued and very sweet warble; call, a querulous whistle.

Nest.—Of strips of bark, twigs, rootlets and grasses, placed at any height in evergreens or orchard trees. The eggs resemble, somewhat, large specimens of those of the Chipping Sparrow. They are three or four in number and are greenish blue with strong blackish specks (.85 x .65).

Range.—N. A. east of the Rockies, breeding from Pennsylvania and Illinois northward; winters throughout the United States.





AMERICAN CROSSBILL.

521. *Loxia curvirostra minor*. 6 inches.

These curious creatures appear in flocks on the outskirts of our cities every winter, where they will be found almost exclusively in coniferous trees. They cling to the cones, upon which they are feeding, in every conceivable attitude, and a shower of seeds and broken cones rattling through the branches below shows that they are busily working. They are very eccentric birds and the whole flock often takes flight, without apparent cause, only to circle about again to the same trees. The flute-like whistle that they utter when in flight sounds quite pleasing when coming from all the individuals in the flock.

Song.—A low twittering; call, a short, flute-like whistle.

Nest.—In coniferous trees, of spruce twigs, shreds of bark and some moss or grass. The three or four eggs are greenish white spotted with brown (.75 x .55).

Range.—Breeds from northern New England northward and westward, and south in mountains to Georgia; winters in the northern half of the U. S.

WHITE-WINGED CROSSBILL.

522. *Loxia leucoptera*. 6 inches.

Male, rosy; female, with yellowish.

This species seems to be of a more roving disposition, and even more eccentric than the last. They are not nearly as common and are usually seen in smaller flocks; occasionally one, or two individuals of this species will be found with a flock of the American Crossbills, but they usually keep by themselves. While they may be seen in a certain locality one season, they may be absent for several seasons after, for some reason or other. They feed upon the seeds of pine cones, prying the cones open with their peculiar bills.

Notes.—Do not differ appreciably from those of the last.

Nest.—The nesting habits of this species are like those of the last, but the eggs differ in being slightly larger and in having the markings of a more blotchy character (.80 x .55).

Range.—Breeds from the northern parts of the northern tier of states northward. Winters in the northern half of the U. S.





GRAY-CROWNED LEUCOSTICTE.

524. *Leucosticte tephrocotis*. 6½ inches.

Female similar to, but duller colored than the male.

All the members of this genus are western and northern, this one only being found east of the Rockies and then only in winter, when it occasionally is found east of the Mississippi. They wander about in rocky mountainous regions, feeding upon seeds and berries. They are very restless and stop in a place but a short time before flying swiftly away, in a compact flock, to another feeding ground.

Note.—An alarm note of a short, quick whistle.

Nest.—Built on the ground, usually beside a rock or in a crevice; composed of weeds and grass, lined with finer grass. They lay three or four unmarked white eggs in June.

Range.—Western U. S., breeding in the higher mountain ranges; in winter sometimes wandering east to the Mississippi.

REDPOLL.

528. *Acanthis linaria*. 5¼ inches.

Male with a rosy breast; female without.

In winter these northern birds may be found in flocks gathering seeds from weeds by the roadside and stone walls. Their actions greatly resemble those of our Goldfinch, but their flight is more rapid.

Song.—Strong, sweet and canary-like.

Nest.—At low elevations in bushes or trees; eggs three to five, pale greenish blue with brown specks.

Range.—Breeds in the extreme north; winters south to northern U. S.

Sub-species.—528a. Holboell Redpoll (*holboelli*), slightly larger. 528b. Greater Redpoll (*rostrata*), larger and darker.

GREENLAND REDPOLL.

527. *Acanthis hornemannii*. 6 inches.

A larger and much whiter species found in Greenland and migrating to Labrador in winter. 527b. Hoary Redpoll (*exilipes*), smaller and darker, but still lighter than the Redpoll; winters south to Massachusetts.





AMERICAN GOLDFINCH.

529. *Astragalinus tristis*. $5\frac{1}{4}$ inches.

These beautiful little creatures are often known as Thistle-birds and Wild Canaries, the former name because they are often seen on thistles, from the down of which their nests are largely made, and the latter name because of the sweet canary-like song. Their flight is a peculiar series of undulations accompanied by an intermittent twitter. They are very sociable and breed usually in communities as well as travel in flocks in the winter. Their food is chiefly of seeds and they often come to gardens in fall and winter to partake of sunflower seeds, these flowers often being raised for the sole purpose of furnishing food for the finches in the winter.

Song.—Sweet, prolonged and canary-like; call, a musical “tcheer,” and a twittering in flight.

Nest.—Of thistle down, plant fibres and grasses, in forks of bushes, most often willows or alders near water. Four or five unmarked, pale bluish eggs.

Range.—N. A. east of the Rockies; breeds from Virginia and Missouri north to Labrador; winters in U. S.

WESTERN GOLDFINCH.

530. *Astragalinus psaltria*. $4\frac{1}{4}$ inches.

Cap, wings and tail black; sides of head and back greenish. Female much duller and with no black in the crown. These little Goldfinches are very abundant throughout the West. Their flight is undulatory like that of the preceding, and all their habits are very similar. They spend the winter in bands, roving about the country, feeding on weed seeds; in summer they repair, either in small bands or by single pairs, to the edges of swamps or woodland near water, where they construct their compact homes in the forks of bushes. Their eggs are pale blue like those of the American Goldfinch, but of course are much smaller (.62 x .45). They are laid in May or June, or even earlier in the western portions of their range.

Song.—Sweet and musical, almost like that of the last species.

Range.—Western United States from the Plains to the Pacific, being abundant west of the Rocky Mountains.





PINE FINCH OR SISKIN.

533. *Spinus pinus*. 5 inches.

These are also northern birds, being found in the U. S., with the exception of the extreme northern parts, only in winter and early spring. Their habits are just like those of the Goldfinches, for which species they are often mistaken, as the latter are dull-colored in winter. Their song and call-notes are like those of the Goldfinch, but have a slight nasal twang that will identify them at a distance, after becoming accustomed to it. They are often seen hanging head downward from the ends of branches as they feed upon the seeds or buds, and when thus engaged they are very tame.

Song.—Quite similar to that of the Goldfinch.

Nest.—In coniferous trees at any elevation from the ground. They are made of rootlets and grasses, lined with pine needles and hair; the three to five eggs are greenish white, specked with reddish brown (.65 x .45).

Range.—North America, breeding northward from the northern boundary of the U. S. and farther south in mountain ranges; winters throughout the U. S.

SNOWFLAKE.

534. *Plectrophenax nivalis*. 7 inches.

Adults in summer black and white; in winter, washed with brownish.

When winter storms sweep across our land, these birds blow in like true snowflakes, settling down upon hillsides and feeding upon seeds from the weed stalks that are sure to be found above the snow somewhere. They are usually found in large flocks, and are very restless, starting up, as one bird, at the slightest noise, or continually wheeling about from one hill to another, of their own accord.

Song.—A low twittering while feeding and a short whistle when in flight.

Nest.—Of grass and moss lined with feathers and sunk in the spagnum moss with which much of Arctic America is covered. Three to five eggs, pale greenish white, specked with brown. Size .90 x .65.

Range.—Breeds from Labrador and Hudson Bay northward; winters in northern United States.





LAPLAND LONGSPUR.

536. *Calcarius lapponicus*. $6\frac{1}{4}$ inches.

Male in summer with black crown and throat, and chestnut nape; female similar but duller; winter plumage, with feathers of head and neck tipped with grayish so as to conceal the bright markings.

As indicated by its name, this is a Northern species, which spends the cold months in northern U. S., traveling in flocks and resting and feeding on side hills, often with Snowflakes, or on lower ground with Horned Larks.

Song.—A sweet trill or warble, frequently given while in flight; call, a sharp chip.

Nest.—Of mosses, grasses and feathers placed on the ground in tussocks or on grassy hummocks. In June and July they lay from four to six eggs having a grayish ground color, which is nearly obscured by the numerous blotches of brown and lavender (.80 x .60).

Range.—Breeds from Labrador northward and winters south to South Carolina and Texas. A sub-species is found in the West.

SMITH LONGSPUR.

537. *Calcarius pictus*. 6½ inches.

Male in summer with the underparts buffy and sides of head marked with black; female, and male in winter, much duller with all bright markings covered with a brownish-gray wash.

Like the last species, these are Arctic birds found, in winter, on the plains and prairies of middle U. S. They are rarely found within our limits when in their beautiful spring plumage. They are most always found in company with the following species feeding upon seeds, buds and small berries.

Song.—A sweet warble rarely heard in the United States; a clear “cheer-up” constantly uttered while on the wing.

Nest.—Of grasses, weeds and moss, lined with feathers; located on the ground in similar locations to those of the last species. The four or five eggs are similar to those of the last but lighter (.80 x .60).

Range.—Breeds about Hudson Bay and northward; winters in middle United States.





CHESTNUT-COLLARED LONGSPUR.

538. *Calcarius ornatus*. 6¼ inches.

Male in summer with a black breast and crown, and chestnut nape; female, and male in winter, much duller and with all bright markings covered with grayish.

Unlike the preceding Longspurs, these are constant residents in the greater part of the Western Plains, in some localities being classed as one of the most abundant birds. They have a short, sweet song that, in springtime, is frequently given as the bird mounts into the air after the fashion of the Horned Larks. They commonly feed about ploughed fields, along the edges of which they build their nests.

Song.—A short, sweet trill; alarm note a sharp chip, and call note a more musical chirp.

Nest.—Of fine grasses, placed on the ground in open prairies or along the edges of cultivated fields, often being concealed beside a tussock; their four or five eggs are clay color marked with reddish brown and lavender (.75 x .55).

Range.—Breeds in the Great Plains from Kansas and Colorado north to Manitoba; winters south to Mexico.

M'COWN LONGSPUR.

539. *Rhynchophanes mecownii*. 6 inches.

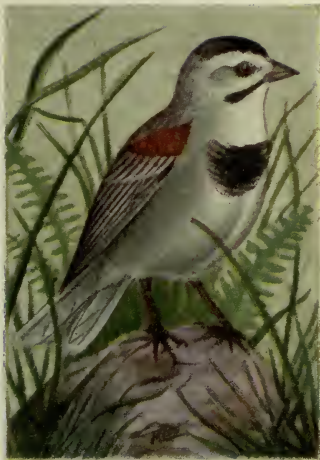
Male with a black crown and patch on breast, and chestnut shoulders; female, and male in winter, dull colored with all bright markings obscured by brownish gray.

These are also common birds on the plains of middle U. S., but perhaps not so much so as the last species, with which species they are often found breeding. These finches show their close relationship to the famous Skylark of Europe by frequently indulging in the same practice of soaring aloft and descending on set wings, rapturously uttering their sweet song.

Song.—A shrill, twittering warble; call a musical chirp.

Nest.—A neat cup of grasses in a hollow in the ground on prairies or in fields. Their four to six eggs are dull whitish clouded with brownish, the marking not being as distinct as in those of the last species (.75 x .55).

Range.—Breeds on the Great Plains from Kansas north to Saskatchewan; winters south to Mexico.





ENGLISH SPARROW.

*** *Passer domesticus*. 6¼ inches.

These street urchins were introduced into our country from Europe about 1850, and have since multiplied and spread out so that they now are found in all parts of our land from the Atlantic to the Pacific. Heretofore they have confined themselves chiefly in the immediate vicinity of the larger cities and towns, but it is now noted with alarm that they are apparently spreading out into the surrounding country. They are very hardy creatures, able to stand our most rigorous winters. They are fighters and bullies from the time they leave the egg, and few of our native birds will attempt to live in the neighborhood with them.

Notes.—A harsh, discordant sound, which they commence early in the morning and continue until night.

Nest.—Of straw and rubbish piled behind blinds, in the tops of electric lights or crevices of buildings, and sometimes large, unsightly heaps of straw in trees. They raise three or four broods a year and in all seasons; five to seven whitish eggs scratched with black.

Range.—Whole of U. S. and southern Canada.

VESPER SPARROW.

540. *Præcetes gramineus*. 6 inches.

The chestnut shoulders and white outer tail feathers distinguish this from any other of our Sparrows.

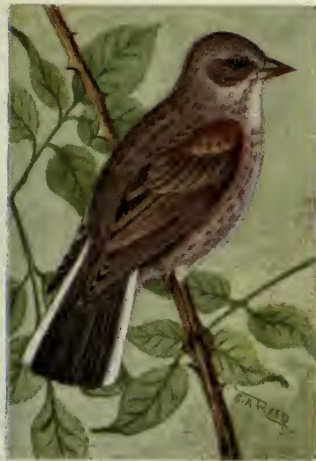
The name Vesper Sparrow is given this bird because of its habit of tuning up along towards evening; it is perhaps more often known as the "Bay-winged Sparrow" or "Grass Finch."

They are found chiefly in dry pastures or along dusty roadsides, where they start from the ground in front of us, their white tail feathers showing prominently as they fly, so that there will be no mistake as to their identity.

Song.—A clear, ascending series of whistles, given from a fence post or bush top; call, a sharp chirp.

Nest.—Of grasses in weedy fields or pastures; four or five whitish eggs marked and blotched with brownish (.80 x .60).

Range.—Eastern N. A. from Virginia to southern Canada; winters in southern U. S. The similar Western Vesper Sparrow (*confinis*) is found from the Plains to the Pacific coast ranges.





IPSWICH SPARROW.

541. *Passerculus princeps*. 6¼ inches.

This species is larger and paler colored, but very similar to the more common and better known Savanna Sparrow. Its habits are the same. It breeds on Sable Island, Nova Scotia, and winters along the Atlantic coast to Virginia.

SAVANNA SPARROW.

542a. *Passerculus sandwichensis savanna*. 5½ inches.

Breast and sides streaked with brownish, and yellow before the eye and also on bend of wing.

These finches are very abundant in eastern U. S. during migrations and a few remain in the northern parts through the summer.

Song.—A weak trill or twitter; a short chip.

Nest.—Of grasses in hollows in the ground and concealed by grass or weeds. The four grayish eggs are spotted with brown (.75 x .55).

Range.—Winters in southern U. S.; breeds from northern U. S. northward. 542b. Western Savanna Sparrow (*alaudinus*) is found from the Plains west to the coast ranges. It is slightly paler.

BAIRD SPARROW.

545. *Coturniculus bairdii*. $5\frac{3}{4}$ inches.

Crown and nape brownish yellow streaked with black; underparts white streaked on the throat, breast and sides with blackish; tail slightly forked and the feathers pointed.

In summer the western plains and prairie ring with the tinkling songs of these little Sparrows; they are especially abundant in Dakota and Montana.

GRASSHOPPER SPARROW.

546. *Coturniculus savannarum australis*. $5\frac{1}{2}$ inches.

Crown blackish with a central buffy stripe; nape brown and gray; sides of head, breast and flanks, buffy without streaks.

Song.—A weak, insect-like “zee-e-e-e-e.”

Nest.—A grass-lined hollow in a field, with the top arched over so as to keep off the sun and conceal the eggs. In June four or five white, brown-specked eggs are laid (.75 x .55).

Range.—U. S. east of the Rockies; winters in southern U. S.

546b. Florida Grasshopper Sparrow (*floridanus*), a darker race found on the plains of interior Florida.





HENSLOW SPARROW.

547. *Ammodramus henslowii*. 5 inches.

Crown and nape greenish, streaked with black; breast and sides buffy, streaked with black; tail feathers narrow and pointed.

This species is of a more southern distribution than the last, being rarely found in New England, but quite common in favorable localities south of Virginia.

LECONTE SPARROW.

548. *Ammodramus lecontei*. 5 inches.

Hind head chestnut and gray; sides of head, throat, breast and flanks a rich buff color.

Song.—A grasshopper-like squeaking.

Nest.—Of grasses in hollows of the ground on prairies; eggs greenish white thickly specked with brownish (.65 x .50).

Range.—Breeds in the Great Plains from Dakota to Manitoba, and winters southeastward to the South Atlantic and Gulf States.

SHARP-TAILED SPARROW.

549. *Ammodramus caudacutus*. $5\frac{3}{4}$ inches.

Back of head greenish; sides of head, breast and flanks buff with black streaks; tail feathers sharp.

Salt marshes along the seacoast or along streams emptying into the ocean are the dwelling places of these finches. They creep about like mice in the salt grass, now running across an open space, now threading their way through the upright stalks.

Song.—A rather weak, squeaky trill.

Nest.—Of seaweed and marsh grass, attached to the grass stalks several inches above ground and often covered by a mass of dry seaweed. Eggs greenish white speckled with brown (.78 x .56).

Range.—Atlantic coast of the U. S.

NELSON SPARROW.

549a. *Ammodramus nelsoni*. $5\frac{1}{2}$ inches.

Similar to the last but brighter colored and not streaked below. In the Mississippi Valley north to Manitoba. 549a. Acadian Sharp-tailed Sparrow (sub-virgatus), Atlantic coast, breeding from Maine to New Brunswick.





SEASIDE SPARROW.

550. *Ammodramus maritimus*. 6 inches.

Yellow spot before the eye. General plumage above grayish green with no black markings. All the habits of the Seaside Sparrows are precisely like those of the Sharp-tailed Sparrows. The nests and eggs are indistinguishable and are often found in the same marshes.

Sub-species.—550a. Scott Seaside Sparrow (peninsulæ), slightly smaller and with the back marked with black and brownish green; South Atlantic coast. 550b. Texas Seaside Sparrow (sennetti), greener above than No. 550; coast of Texas. 550c. Fisher Seaside Sparrow (fisheri), darker above than scotti and with the breast and sides heavily washed with rusty and streaked with black; coast of Louisiana. 550d. Macgillivray Seaside Sparrow (macgillivrayii), coast of South Carolina.

DUSKY SEASIDE SPARROW.

551. *Ammodramus nigrescens*. 6 inches.

Darkest of the Seaside Sparrows. Found only in marshes at head of Indian River, Florida.

LARK SPARROW.

552. *Chondestes grammacus*. 6¼ inches.

These handsome sparrows are very abundant in the Mississippi Valley; their favorite resorts are fields, pastures and prairie lands, or along dusty roadsides. Their song is one of the sweetest of any of the Sparrows, and is freely given throughout the summer.

Song.—A hurried gush of silvery tremulous notes.

Nest.—Sometimes in bushes but usually on the ground; of grasses arranged in a hollow to form a little cup, and usually concealed under a tuft of grass or bunch of clover. The birds usually run some distance from the nest before flying, so that they are quite hard to find. They lay three to five eggs, white, specked and scrawled sparingly with blackish (.80 x .60.), wholly different from those of any other Sparrow.

Range.—Mississippi Valley, breeding from Texas to Manitoba; winters in southern U. S. and Mexico.

Sub-species.—552a. Western Lark Sparrow (*strigatus*) is slightly paler and less heavily marked; found from the Plains to the Pacific.





HARRIS SPARROW.

553. *Zonotrichia querula*. 7½ inches.

Adults in summer with the crown, face and throat black; in winter with the black areas mottled with gray.

This species is one of the largest of the Sparrows. It is found abundantly on the prairies during migrations, but about nesting time they all seem to disappear and no one has, as yet, been able to locate their exact breeding range. It is supposed to be among some of the foothills of North Dakota and northward through Manitoba and Saskatchewan, as they have been found during the summer in all these localities. Nests supposed to belong to this species have been found, but they lack positive identification.

Song.—A series of musical, piping whistles.

Nest.—Supposed to be of grass and bark, a few inches above the ground in weed stalks or small shrubs; eggs whitish, thickly spotted with brown (.95 x .65).

Range.—Interior U. S. from Texas (in winter) north through the Plains and Mississippi to Manitoba.

WHITE-CROWNED SPARROW.

554. *Zonotrichia leucophrys*. 7 inches.

Adults with a white crown bordered by black, the black covering the lores or space before the eye (the sub-species found west of the Rockies have the lores white).

We know these birds in the U. S., except in mountain ranges or in the extreme northern parts, only as migrants, they then being found in brushy woodlots or along roadsides. In the north they are found in deeply wooded ravines and on side hills. While with us they rarely if ever sing, but in their summer home they have a clear tinkling song like that of the White-throated Sparrow, with which we see them associated here.

Song.—A clear, sweet, piping “see-dee-dee-dee-de-e;” call note a sharp chip.

Nest.—Usually on the ground under patches of brush or bushes. The four or five eggs are whitish profusely spotted with brown (.90 x .63).

Range.—N. A., breeding from northern U. S. northward and in high ranges south to Mexico.





WHITE-THROATED SPARROW.

558. *Zonotrichia albicollis*. 6¾ inches.

In thick underbrush, we hear these birds scratching about among the leaves; occasionally one of them will hop up on a twig and give his clear peabody song, or, hearing or seeing you, give a sharp chirp and dash out of sight again. They are birds of the ground, always busy and always happy. I think that without any exception, they are the handsomest of our Sparrows, their colors are so rich and harmonize and blend together so well.

Song.—A high-pitched, very clear and sweet whistle, “pea-bo-dy-bird.” Call and note of alarm, a metallic chirp.

Nest.—Usually on the ground on the borders of woods or in swamps; of grass and leaves, similar to, but larger, than that of the Song Sparrow. Four or five eggs, pale greenish blue, thickly spotted with brown (.85 x .63).

Range.—N. A. east of the Rockies, breeding from northern U. S. to Labrador and Hudson Bay; winters in the southern half of U. S.

TREE SPARROW.

559. *Spizella monticola*. 6¼ inches.

A blackish-brown spot in middle of breast; crown reddish brown with no black about the head; back and wings with considerable brown.

These Sparrows are summer residents of the Arctic region, passing the winter in the northern half of the U. S. They bear considerable resemblance to our common Chipping Sparrow, but are larger and have characteristic markings as noted above. They appear in the U. S. in October and many of them pass the winter in the fields and gardens in our northern states.

Note.—A musical chirp; song, strong, sweet and musical and ending in a low warble.

Nest.—Usually on the ground, but sometimes at low elevations in bushes. Eggs pale greenish blue with brown specks over the whole surface, thus being very different from those of the Chipping Sparrow (.80 x .60).

Range.—N. A. east of the Plains, breeding in Labrador and about Hudson Bay; winters in northern half of the U. S. A sub-species, 559a. Western Tree Sparrow (*ochracea*) is paler; it is found from the Plains to the Pacific, breeding in the north.





CHIPPING SPARROW.

560. *Spizella socialis*. 5¼ inches.

Crown chestnut; forehead black; line through the eye black.

One of the commonest and most useful of our Sparrows, frequenting orchards, yards and bushy pastures. They are not at all timid and frequently nest in vines, covering porches or the side of the house, provided that English Sparrows are not too plenty. They eat great quantities of insects and worms, and some seeds, feeding their young wholly upon the former.

Song.—A very rapidly chanted chip, chip, chip, chip, continued for several seconds; call, a sharp chip.

Nest.—A small cup-shaped structure of rootlets, lined with horsehair; placed in bushes, trees or vines; eggs three to five, bluish green, speckled, chiefly around the large end, with blackish brown (.65 x .50).

Range.—N. A. east of the Plains, breeding from the Gulf of Mexico north to Newfoundland and Hudson Bay; winters in the Gulf States. A sub-species is found west of the Rockies.

CLAY-COLORED SPARROW.

561. *Spizella pallida*. 5½ inches.

No reddish brown in the plumage; crown largely black, with a whitish stripe in centre. The habits of these birds are the same as those of the Chippy; they are abundant on the Plains north to Saskatchewan and breed south to the northern portion of the United States. They spend the winter in Mexico. Their nests and eggs cannot be distinguished from those of the preceding, except, perhaps, by the fact that the nest has more grass than hair.

BREWER SPARROW.

562. *Spizella breweri*. 5½ inches.

Like the last species, the general tone of plumage of this is gray. It differs, though, in having the crown finely streaked with blackish. It is a more western species than the last and is rarely found east of the Rockies. It ranges from British Columbia southward into Mexico.





FIELD SPARROW.

563. *Spizella pusilla*. 5½ inches.

Bill pinkish-brown; crown and ear covert brown with no black markings; back reddish brown and breast and sides washed with brown.

You will find these birds in dry pastures, stubble fields and side hills. The hotter and dryer a place is, the better they seem to like it. They are often the only birds that will be found nesting on tracts of land recently burned over, upon which the sun beats down with stifling heat.

Song.—A series of shrill piping whistles on an ascending scale and terminating in a little trill, "sweet-see-see-se-e-e."

Nest.—A frail structure of grasses and weeds, lined with finer grasses; placed either on the ground or in bushes, briars or weed patches; four or five whitish eggs marked with reddish brown (.68 x .50).

Range.—Breeds from the Gulf States north to southern Canada; winters in southern United States.

Sub-species.—563a. Western Field Sparrow (*arenacea*), a paler race found on the Great Plains.

WHITE-WINGED JUNCO.

566. *Junco aikeni*. 6½ inches.

Slightly larger than the common eastern Junco, and with two white bars on the wing and more white on the tail.

This species cannot be regarded as common anywhere, even locally, and in most sections of its range it is rare. There are no peculiarities in its habits and I believe that its nests and eggs have not, as yet, been discovered.

Range.—Breeds in Wyoming and the Dakotas and winters in Colorado and eastward to Kansas.





SLATE-COLORED JUNCO.

567. *Junco hyemalis*. 6¼ inches.

These are one of our most common winter birds, easily recognized, while perching or on the ground, by the white or pinkish bill, and when flying by the white outer tail feathers and the gray and white plumage. They are very common about houses as well as on the edges of woods and in pine groves, being very tame and coming into the dooryard to feed upon crumbs or chaff which is often thrown out for them.

Song.—A sweet simple trill, which has a beautiful effect when given by a whole flock in unison.

Nest.—Of grasses, on the ground, usually beside a stone, in a bunch of weeds or under a small shrub, where it is well concealed. The three or four eggs are whitish, sprinkled with reddish brown (.75 x .55).

Range.—Eastern N. A., breeding from the northern parts of the northern tier of states northward; winters south to the Gulf.

Sub-species.—567e. Carolina Junco (*carolinensis*), found in the Alleghanies from Virginia to Georgia; there are several races found west of the Rockies.

BLACK-THROATED SPARROW.

573. *Amphispiza bilineata*. 5½ inches.

These little Sparrows are entirely unlike any other North American species. They are found in the southwestern deserts, where they are not uncommon in certain localities, being found in mesquite or chaparral brush.

Note.—An ordinary Sparrow chip; song, a rich metallic “zip-zip-zip-zee-zee-zee,” the first three ascending, the second three notes descending.

Nest.—In bushes or cacti at low elevations; eggs plain bluish white (.70 x .50).

Range.—From Texas north to Kansas in summer. A paler sub-species, the Desert Sparrow (*deserticola*), is found westward to southern California.

SAGE SPARROW.

574a. *Amphispiza belli nevadensis*. 6¼ inches.

These birds are found in arid regions, frequenting the sage brush that is found in the Great Basin region, from western Texas to California.





PINE-WOODS SPARROW.

575. *Peucaea aestivalis*. $5\frac{3}{4}$ inches.

Upper parts streaked with black; back chestnut and gray; under parts buffy white; tail rounded.

These dull-colored birds are abundant on some of the southern pine barrens. Their habits are similar to those of the Henslow Sparrow; they are quite shy and it is almost impossible to make one show itself above the grass, through which it runs and dodges with great swiftness. If it is surprised into taking wing it goes but a few feet, then drops out of sight again.

Note.—A metallic chip; song, similar to that of the Field Sparrow, but reversed; that is, with the trill first.

Nest.—Of grasses, on the ground, under shrubs or in tufts of grass; not usually arched as those of Bachman Sparrow seem to always be; four or five pure white eggs (.72 x .60).

Range.—Georgia and Florida. 575a. Bachman Sparrow (*bachmannii*) is brighter above but has fewer black streaks; found in the South Atlantic and Gulf States and north to Indiana.

SONG SPARROW.

581. *Melospiza cinerea melodia*. 6¼ inches.

This is probably the best known, most abundant and most widely distributed (in its numerous sub-species) of all our birds. They are quite hardy and many of them winter in the northern states, but the majority go farther south, returning to their summer homes about the first of March. They may be found anywhere where there are bushes, vines or hedges, and very often about houses, even in large cities.

Song.—Very pleasing and musical, strongly resembling brilliant measures from that of the Canary.

Nest.—Of grass, either on the ground or in bushes; three to five bluish-white eggs, profusely spotted with brown (.80 x .58).

Range.—Eastern N. A., breeding from Virginia and Missouri north to southern Canada. Winters from Massachusetts and Ohio southward. Many local races are found west of the Rockies, but only one east of there. 581j. Dakota Song Sparrow (juddi) is found in the vicinity of Turtle Mountains, North Dakota; it is said to be lighter above and brighter below.





LINCOLN SPARROW.

583. *Melospiza lincolni*. 5¾ inches.

Upper parts extensively brown and black; breast and sides bright buff with fine black streaks.

These finches are quite abundant in the West, especially during migrations, but are rather uncommon in the eastern states. Their habits are similar in some respects to both those of the Song Sparrow and of the Grasshopper Sparrow. They are very lively at all times and in the mating season quite pugnacious. They sit for minutes at a time upon the top of a bush pouring forth their melody, and they have one of the most brilliant songs of any of the family.

Song.—Loud, clear and gurgling, after the style of the house Wren; call, a metallic chirp.

Nest.—Of grass, on the ground, in tufts of grass or under small shrubs; eggs pale greenish white, heavily marked with chestnut (.80 x .58).

Range.—N. A., breeding from northern U. S. to Labrador and Alaska; winters in southern half of U. S.

SWAMP SPARROW.

584. *Melospiza georgiana*. 5¾ inches.

Forehead black; crown chestnut with a gray median stripe; whole upper parts very dark; under parts grayish with brown sides.

A very quiet and unobtrusive species that dwells, as its name implies, chiefly in swamps. They creep about under the rank weeds and underbrush like so many mice; they are especially fond of the soft mires where walking is so difficult for human beings; they patter around on the soft mud with evident enjoyment, occasionally walking across an open space of water on what floating debris they may find available.

Song.—A feeble chant; call, a sharp metallic cheep.

Nest.—Of grasses, on the ground in damp places; four or five eggs, having a pale greenish-blue color heavily blotched and clouded with shades of brown (.80 x .55).

Range.—N. A. east of the Plains, breeding from New Jersey and Missouri north to Labrador and Hudson Bay; winters in southern half of the U. S.





FOX SPARROW.

585. *Passerella iliaca*. 7¼ inches.

Above bright reddish brown and gray; rump and tail wholly reddish brown, and spots on the breast and sides of the same color.

In winter we find these large Sparrows in quiet swamps and open woods, where they scratch about among the fallen leaves, after the manner of domestic fowls; they will scratch energetically for a few seconds, then pause to see what they have uncovered. They have a short but loud and joyful song, with which they greet you on clear frosty mornings, and the effect is very beautiful when a large flock of them are singing in chorus.

Song.—A loud, clear and melodious carol; call, a soft chip.

Nest.—Of grass and moss, lined with fine grass and feathers; four or five pale bluish-green eggs, spotted with reddish brown and chestnut (.90 x .65).

Range.—N. A. east of the Rockies, breeding from New Brunswick and Manitoba northward; winters in the southern states.

TOWHEE OR CHEWINK.

587. *Pipilo erythrophthalmus*. 8 inches.

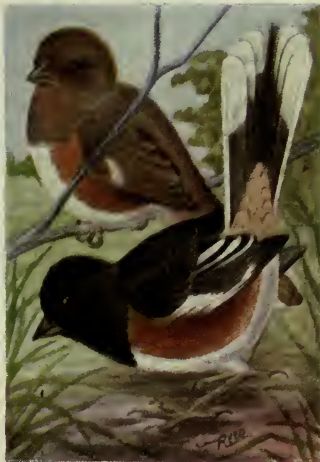
A bird of swamps, brushy pastures and open woodlands. They are ground birds and usually found scratching among the leaves; the male, with his black, white and brown clothes, makes a conspicuous object, while the female, with her brown and white dress, harmonizes with the leaves so that it is difficult to see her. While his mate is sitting on her nest, the male will frequently sit in a tree top and persistently sing for many minutes at a time.

Song.—Loud and clear, "tow-hee-e-e" or "see-tow-hee-e-e," with the last notes tremulous; call, a sharp "cherink."

Nest.—Usually on the ground, but rarely in bushes; of strips of bark, grass and leaves; eggs white with reddish-brown dots over the whole surface (.90 x .70).

Range.—Eastern N. A., breeding from the Gulf States to southern Canada; winters in southern U. S.

Sub-species.—587a. White-eyed Towhee (*alleni*) has white eyes instead of red and less white on the tail; found on the South Atlantic coast.





GREEN-TAILED TOWHEE.

592.1. *Oreospiza chlorura*. 7 inches.

These are characteristic birds of the Western mountains. They are typical brush birds, satisfied in living a life of security in their own way, and rarely appear above the surface of the thick shrubbery except to mount to a conspicuous twig, pour forth their sweet melodies and then retreat again.

Notes.—A loud chip; a soft, mewling note; song, finch-like, musical but rather simple.

Nest.—Either on the ground or in bushes near the ground. Made of grasses the same as that of any of the sparrows. Eggs pale bluish gray, thickly speckled with reddish brown. The nests are built in very thickly tangled underbrush and are difficult to locate.

Range.—Western United States, from the eastern base of the Rockies west to the eastern slope of the Sierra Nevadas.

CARDINAL.

593. *Cardinalis cardinalis*. 9 inches.

Noble in carriage, beautiful of plumage, amiable in disposition and excellent singers are some of the qualifications of these large-billed birds. They are southern birds, rarely seen in northern U. S. unless in cages, for large numbers of them are trapped for this purpose, a practice that is being stopped as rapidly as possible by enforcing the laws which protect them. They are hardy birds, often passing the winter in the northern parts of their range when the ground is covered with snow. They frequent gardens, plantations and open woods, where they glean their food of seeds, berries, fruit and insects.

Song.—A loud, clear and lively warble; call, a low chip.

Nest.—A frail structure of twigs, in thickets or bushes; eggs greenish blue with reddish-brown spots (1.00 x .73).

Range.—Resident and breeding from the Gulf to New York and Iowa. 593. Florida Cardinal (*floridanus*) is supposed to be slightly smaller and brighter.





TEXAN CARDINAL; PYRRHULOXIA.

594a. *Pyrrhuloxia sinuata texensis*, 8½ inches.

Notice that the bill of this species is very stout and short, more like that of a parrot. The crest is also composed of fewer feathers than that of the Cardinal. It is only in the highest of plumages that the red on the underparts is continuous from bill to tail; usually it is broken into patches. The female is much duller in color than the male, but always has a strong tinge of rose color. They frequent more open and exposed positions than do Cardinals and are more shy in their disposition.

Nest.—Shabby platforms of twigs and grasses placed at low elevations in thickets. The three or four eggs are whitish, specked with dark brown, most profusely at the large end (.90 x .70).

Range.—Abundant in the Lower Rio Grande Valley in southern Texas.

ROSE-BREASTED GROSBEAK.

595. *Zamelodia ludoviciana*. 8 inches.

Male, black and white with rose breast and under wing coverts; female resembling a large striped Sparrow in color.

The center of abundance of these beautiful creatures is in the northern half of eastern U. S. In beauty and song he fully atones for what we northerners lose because of the southerly distribution of the Cardinal. We find them in swamps, small patches of woods, and, sometimes, in orchards. They are rather quiet birds, that is they do not move about much, but they can easily be found by their song.

Song.—A rich, full, whistling carol, almost without exception immediately preceded with a sharp chip. Call, a deep-toned chirp.

Nest.—A loose, frail cradle of twigs at low elevations in trees or thickets; eggs bluish green spotted with brown (1.00 x .75).

Range.—U. S. east of the Rockies, breeding in the northern half and in southern Canada; winters in Central America.





BLUE GROSBEAK.

597. *Guiraca cærulea*. 7 inches.

Male, deep blue with chestnut shoulders; female, grayish brown above and grayish white below.

Open woods, small groves and roadsides are the locations in which these birds will be apt to be found. In some places they are fairly common, but nowhere abundant. Their habits are very similar to those of the Rose-breasted Grosbeak.

Song.—A rapid varied warble, similar to but louder and stronger than that of the Indigo Bunting.

Nest.—Of twigs, weeds and grasses, lined with fine rootlets; placed in thickets, bushes or low trees; four or five plain bluish-white eggs (.85 x .62).

Range.—Eastern U. S., breeding from the Gulf to Maryland and Illinois; winters south of U. S.

Sub-species.—597a. Western Blue Grosbeak (*la-zula*). Male of a brighter shade of blue than the eastern; found from the Mississippi to the Pacific, breeding north to Kansas, Colorado and northern California.

INDIGO BUNTING.

598. *Passerina cyanea*. 5½ inches.

Male, indigo blue; female, brownish but usually with a faint indication of blue on the wings or tail.

A jolly summer songster, dwelling with us from the latter part of May until September. You will meet with these Buntings along roadsides lined with scrubby trees or bushes, or in pastures or along the edges of swamps. The male usually has some favorite perch upon which he spends a large portion of his time singing; it is nearly always the top of a tall bush or tree.

Song.—A sprightly little warble with many canary-like notes. Call, a sharp chip.

Nest.—Of grasses at low elevations in shrubs or bushes; eggs four or five in number, very pale bluish white (.75 x .52).

Range.—U. S. east of the Rockies, and most abundant east of the Mississippi; breeds north to Manitoba and New Brunswick; winters in Central America.





LAZULI BUNTING.

599. *Passerina amoena*. 5½ inches.

This species replaces the preceding one west of the Plains. While the plumage of the males is entirely distinctive, that of the females is often confusing. The present species has quite a conspicuous band of rusty buff across the breast and lacks any sign of stripes on the sides, such as show faintly on the last species. Its habits are just like those of the Indigo and it frequents the same kind of territory.

Nest.—Built in a bush or on the lower branches of trees, only a few feet from the ground. The eggs are very pale bluish white (.75 x .58).

Range.—Western United States from the Great Plains to the Pacific coast; north along the coast to British Columbia; south in winter to Mexico.

VARIED BUNTING.

600. *Passerina versicolor*. 5½ inches.

This beautiful species is less common than any others of the genus and has a very restricted range in the United States. The plumage of the male birds varies a great deal; that shown in the accompanying illustration is from a brightly colored specimen. They will average duller than this. These birds frequent thickets or brush-studded pasture land. Their song is described as weaker than that of the Indigo Bunting, but having much of the same character.

Nest.—Built of grasses, bark and fine rootlets; a cup-shaped structure placed in forks of bushes, usually in tangled thickets. The three or four eggs cannot be distinguished from those of the last species.

Range.—The Lower Rio Grande Valley in southern Texas. A sub-species (*pulchra*) is also found in Lower California and southern Arizona.





PAINTED BUNTING.

601. *Passerina ciris*. 5½ inches.

Male, vari-colored; female, greenish gray.

Without any exception, these are the most gaudily plumaged North American birds, but their colors have a harshness of contrast that renders them far less pleasing to the eye than many others of our birds. They are often caged, but in confinement soon lose the natural brilliancy of their plumage. Like the Indigo Bunting, they are found in thickets and hedges; their habits seem to be precisely like those of the last species.

Song.—Similar to that of the Indigo but lacking the brilliancy of that of the latter bird.

Nest.—Of grasses, leaves, strips of bark and root-lets, compactly compressed and woven together, situated at low elevations in thickets and low bushes; eggs whitish, specked and blotched with reddish brown (.78 x .58).

Range.—Southeastern U. S., breeding from the Gulf north to Virginia, Ohio and Kansas; winters in Central America.

MORELLET SEED-EATER.

602. *Sporophila morelleti sharpei*. 4½ inches.

The male of this interesting little species requires at least three years in which to obtain the perfect plumage as shown in our illustration. The majority of birds seen will be in intermediate stages of plumage between that of the adult female and this one. These little fellows are usually found in thickets or patches of briars and are quite tame.

Note.—During the breeding season the male has a sprightly song similar to that of the Indigo Bunting.

Nest.—The nests are made of fine grass and placed in bushes or young trees. The eggs are bluish green spotted rather evenly with brown (.65 x .48).

Range.—Southeastern Texas and southward into Mexico.





DICKCISSEL.

604. *Spiza americana*. 6¼ inches.

Male beautifully blended with yellow, white and gray, and with a black throat patch and brown shoulders; female duller.

In the middle portions of the U. S. these birds, or Black-throated Buntings, as they are commonly called, are very numerous, frequenting dry, bushy fields or prairies. They are very persistent songsters, although their song is weak and has little melody. In July and August, when many birds are silent, they continue their plaintive chant even on the most sultry days.

Song.—A simple chanting “chip, chip, che-che-che.”

Nest.—Either on the ground, in bushes or thistles, or in trees; of weeds, grasses, rootlets, corn husks, etc.; eggs four or five in number, plain bluish white and hardly distinguishable from those of the Bluebird; size .80 x .60.

Range.—N. A. east of the Rockies, breeding from the Gulf States north to northern U. S.; rare in the Atlantic States north to Connecticut.

LARK BUNTING.

605. *Calamospiza melanocorys*. 7 inches.

Male, black and white; female, brown and gray.

This species is often known as the White-winged Blackbird, not because it bears any resemblance to any of the Blackbirds, nor because any of the habits are the same, but simply because of its plumage. They are very gregarious and usually fly in flocks even in nesting time.

They seem to be very methodical and well trained; if one of a flock takes wing, the entire flock rises simultaneously and in a very compact body they fly until some leader chooses the next stopping place, when they as suddenly alight. They have the habit of Sky-larks in mounting into the air while singing and then descending on set wings.

Song.—A very lively, sweetly modulated warble.

Nest.—On the ground, usually under a tuft of grass or small bush; four or five eggs of a bluish color (.85 x .65), brighter than those of the Dickcissel.

Range.—Western U. S., most abundant from Kansas to Colorado and north to Assiniboia.





SCARLET TANAGER.

608. *Piranga erythromelas*. 7½ inches.

Male, scarlet and black; female, greenish yellow and blackish.

These beautiful birds are found in open woods, but they often come out in fields, parks, orchards and sometimes in yards when feeding; one of the prettiest sights that I ever saw was of about a dozen of these birds tripping along the furrows of a ploughed field, where they were feeding on insects. Besides berries and seeds, they live upon quantities of insects, frequently catching them on the wing in true Flycatcher style.

Song.—Resembling that of the Robin, but harsher, less varied and higher pitched. Call, a sharp chip or “chip-churr.”

Nest.—Loosely made of twigs and rootlets, on lower branches of trees; eggs four, pale bluish green, spotted with brown (.95 x .65).

Range.—Breeds in the northern parts of the U. S. from the Atlantic to the Plains; winters in the Tropics, from whence it arrives about May 15.

SUMMER TANAGER.

610. *Piranga rubra*. 7½ inches.

Male, rosy red; female, greenish yellow.

These Tanagers have a more southerly distribution than the Scarlet variety, but are found in the same kind of territory. In its localities it is rather more abundant and less retiring than is the latter bird in the north, and more often dwells in public parks. This bird is often called the Redbird and in localities where both the Scarlet Tanager and this species are found, they are frequently known by the same name, as their habits and notes are similar.

Song.—Similar to that of the Scarlet Tanager but said to be sweeter and clearer, and to more nearly resemble that of the Robin.

Nest.—On the outer horizontal limbs of trees in open woods or groves; nest of twigs and rootlets; eggs bluish green, spotted with brown (.95 x .65).

Range.—U. S. east of the Rockies, breeding from the Gulf to New Jersey and Kansas; winters in Central America. A sub-species is found west of the Rockies.





PURPLE MARTIN.

611. *Progne subis*. 7¾ inches.

Male, blue black; female, dull black and grayish.

These large, jolly Swallows are commonly seen about cities and towns within their range. Originally they dwelt in hollow trees, and some do yet, but the majority have recognized the superiority of man's dwelling and now live in houses built especially for them or in cornices of houses or barns. It is no uncommon sight to see a handsome gabled structure of many rooms, perched upon a twelve-foot pole, on the lawns of many wealthy residents; others less bountifully supplied with this world's goods use plain soap boxes for the same purpose, and the Martins seem to like the one as well as the other.

Song.—A strong, varied grating warble or twitter, more forcible than melodious.

Nest.—Of straw, paper, rags, etc., in bird houses, gables or hollow trees; eggs dull white (.98 x .72).

Range.—N. A., breeding from the Gulf to New Brunswick and Saskatchewan; winters in northern South America.

CLIFF SWALLOW.

Petrochelidon lunifrons. 5½ inches.

Adults similar in plumage but the female slightly paler. Easily distinguished from the Barn Swallow by the square tail and light buffy forehead and rump.

This is what is commonly called the Eave Swallow in the East, because of its habit of plastering its nests on the outside of barns or other buildings, up under the eaves. In the West they usually resort to cliffs where, sometimes, large sections of the face will be completely covered with the little mud flasks; often colonies of several thousand will build their nests together.

Song.—A continuous twitter, uttered while on the wing or at rest.

Nest.—A flask or gourd-shaped structure of mud, lined with straw and feathers, attached under the eaves to the outside of buildings or on the faces of cliffs; five to seven eggs are laid; white dotted and spotted with reddish brown (.80 x .55).

Range.—N. A., breeding from the Gulf to Greenland and Alaska; winters in the Tropics.





BARN SWALLOW.

613. *Hirundo erythrogastra*. 7½ inches.

Female duller plumaged and with a less deeply forked tail than the male. Forehead and throat chestnut and entire under parts buffy; tail deeply forked and with a white spot on the inner web of each feather except the central pair.

This is the most graceful and beautiful of all our swallows, and is the most common about farm houses, the inside beams and rafters of which they appropriate for their own use. They delight in skimming over the rolling meadows or the surface of ponds, now rising with the wind, now swooping downward with the speed of an arrow.

Song.—A continuous, rapid twitter.

Nest.—A bowl-shaped structure made up of pellets of mud cemented together with the birds' saliva, and lined with feathers; attached to rafters in barns, the opening being at the top and not at the side as in the last; eggs exactly like those of the last.

Range.—N. A., breeding north to the limit of trees; winters in northern South America.

TREE SWALLOW.

614. *Iridoprocne bicolor*. 6 inches.

Male, steely blue or greenish above; female, duller and often plain gray above, but both sexes always entirely white below.

These Swallows are also abundant about farmyards; except when they are skimming over ponds, they are almost always scouring the air above buildings or fields, at higher elevations than the Barn Swallows. When weary they roost on dead twigs or telephone wires, hundreds often being seen in rows on the latter. Like the Martins, these birds frequently nest in bird boxes, but usually not more than one or two pairs in a single house.

Notes.—A twittering like that of the other Swallows.

Nest.—Of grass, lined with feathers, in hollow trees on the border of water or in orchards, or in bird boxes erected for their use; eggs white (.75 x .52).

Range.—Breeds in the northern half of the U. S. and northward to Labrador and Alaska; winters in southern U. S. and southward.





BANK SWALLOW.

616. *Riparia riparia*. $5\frac{1}{4}$ inches.

These are the smallest of our Swallows; this species can be distinguished, even at a distance, by the conspicuous band across the breast, showing in bold relief against the lighter throat. They are found throughout North America, breeding from the middle of the U. S. north to the Arctic regions.

They nest in colonies in holes in banks, laying the four to seven white eggs on a grass nest in an enlarged chamber at the end of the tunnel.

ROUGH-WINGED SWALLOW.

617. *Stelgidopteryx serripennis*. $5\frac{1}{2}$ inches.

In this species the throat is gray as well as the breast. The outer vane of the outer primary is stiff and bristly, thus giving the species its name. These birds breed from the Gulf north to Massachusetts and Washington, in banks or in crevices of stone bridges. The eggs cannot with certainty be distinguished from those of the Bank Swallow. They measure .75 x .52.

BOHEMIAN WAXWING.

618. *Bombycilla garrula*. 8 inches.

Larger and grayer than our common Cedar Waxwing and with yellow and white on the wing; it is a northern species and is only casually found in eastern U. S. They nest within the Arctic Circle and only a few of their nests have ever been found. In winter they are found in flocks, roving restlessly about the country, often appearing where least expected and utterly deserting other places where they are usually found.

Nest.—Of small twigs and moss, lined with feathers, usually placed at low elevations in spruce or coniferous trees; eggs dull bluish white specked sparingly with black (1.00 x .70), similar to those of the Cedar Waxwing but larger.

Range.—Northern parts of the northern hemisphere, breeding within the Arctic Circle and wintering casually south to Massachusetts, Pennsylvania, Kansas and California.





CEDAR WAXWING.

619. *Bombycilla cedrorum*. 7 inches.

Plumage very soft colored with a general brownish tone, shading to gray on the rump. The Waxwings are named from the curious wax-like appendages attached to the tips of the secondaries, and rarely to the tail feathers. They are very sociable and usually feed in flocks. They live chiefly upon fruit and are especially fond of cherries, for which reason they are very often known as Cherry-birds. They are very tame and allow anyone to almost touch them while they are feeding or sitting upon their nests.

Note.—An insignificant lisping hiss.

Nest.—A substantial structure of twigs, mosses, twine, etc., lined with fine grasses; placed in cedar trees or, when near habitations, usually in orchard trees; the four or five eggs are dull bluish white, specked with black (.85 x .60).

Range.—N. A., breeding from Virginia, Missouri and northern California north to Labrador and southern Alaska; winters throughout the United States.

NORTHERN SHRIKE.

621. *Lanius borealis*. 10 inches.

This shrike is larger than any of the species found in summer in the United States and has the breast quite distinctly barred.

Shrikes are cruel, rapacious and carnivorous birds, feeding upon insects, grasshoppers, lizards and small birds. As they have passerine feet, the same as all our small birds, they are unable to hold their prey between the feet while tearing it to pieces, so they impale it upon thorns or the barbs of a wire fence, so they may tear it to shreds with their hooked bill.

Song.—Loud snatches consisting of various whistles and imitations suggesting that of a Catbird.

Nest.—They breed chiefly north of the U. S., placing their rude, bulky structures of twigs and weeds in thorny trees or hedges; their four to six eggs are grayish white with spots of light brown and darker gray (1.08 x .80).

Range.—N. A., breeding chiefly in the northern parts of Canada; winters south to Pennsylvania, Kansas and California.





LOGGERHEAD SHRIKE.

622. *Lanius ludovicianus*. 9 inches.

Pure white below and with the markings above, intense black instead of the brownish or grayish black of the last species. Although smaller, these Shrikes have the same destructive habits of the northern species. All the Shrikes do considerable good to mankind, for they eat quantities of grasshoppers and mice, and probably resort to their diet of small birds when other food is unusually scarce. It cannot be denied that they are cruel, for they often kill more than they can eat and leave it impaled on thorns to decay.

Song.—Of harsh, discordant whistles.

Nest.—In scrubby hedges and thickets; of twigs, weeds, leaves, etc.; eggs four to seven in number, grayish white, spotted with shades of brown and gray.

Range.—Eastern U. S., breeding from the Gulf to southern New England and Manitoba; winters in southern states.

Sub-species.—622a. White-rumped Shrike (*excubitorides*), paler and with a white rump; found from the Plains to the Pacific in the U. S.

RED-EYED VIREO.

624. *Vireosylvia olivacea*. 6 inches.

Crown slaty gray with a black border; white stripe above eye; eye reddish brown.

Throughout the United States this is one of the most abundant of the family. All through the spring and summer months their warble is heard from woodland and roadside, often becoming so monotonous as to be irritating. Oftentimes during the spring migrations of Warblers, Vireos are so numerous and singing so lustily that it is impossible to hear or distinguish the songs of any of the smaller birds.

Song.—Delivered in parts with intermission of a few seconds between, from morning until night; a short varied warble; call, a petulant mew.

Nest.—A basket woven of strips of bark and fibres, and often with pieces of newspaper worked in, lined with fine grass; eggs white with a few blackish-brown specks on the large end (.85 x .55).

Range.—U. S. east of the Rockies, breeding from the Gulf to Labrador and Manitoba; winters in Central America.





PHILADELPHIA VIREO.

626. *Vireosylvia philadelphica*. 5 inches.

This is one of the least common of the eastern Vireos, although it is more common than most people know: its song is not distinctive and it keeps high up in trees, so it is not usually noticed. Their nests are swung from branches at high altitudes and are seldom found.

WARBLING VIREO.

627. *Vireosylvia gilva*. 5 inches.

Above olive-green; crown grayer but with no black border. These are among the most common of the Vireos and may be found even in the hearts of large cities, swinging their pretty little nests high up in shade trees. Their song is after the style of that of the Purple Finch, very different from that of the Red-eye. The eggs are white with a few brown specks on the large end. These birds breed throughout the U. S. and southern Canada.

YELLOW-THROATED VIREO.

628. *Lanivireo flavifrons*. 5¾ inches.

Upper parts greenish; throat, breast and line over eye yellow; two prominent whitish wing bars.

A handsome Vireo found in localities such as are frequented by the Red-eyed species. Nowhere do they appear to be as abundant as that species, however; they are more abundant than many suppose, but the difficulty of clearly seeing the yellow breast when they are feeding in the tree tops, combined with the similarity of their songs, usually caused them to be passed by without inspection.

Song.—Similar to that of the Red-eye, but louder and more nasal, less varied and not uttered as often.

Nest.—A pensile structure of strips of bark, grasses, etc., with the outside often ornamented with lichens; three to five eggs with a creamy or rosy-white tint, specked, more profusely than those of the Red-eye, with reddish brown (.82 x .60).

Range.—Eastern U. S., breeding from the Gulf to southern Canada; winters in Central America.





BLUE-HEADED VIREO.

629. *Lanivireo solitarius*. 5¾ inches.

Crown and sides of head bluish slate; lores, eye-ring and underparts white; back and flanks greenish yellow; two whitish wing bars.

This species, to my eye, is the prettiest of the Vireos, all the colors being in just the right proportion and blending and harmonizing perfectly. They are solitary, in that they are usually found in deep woods, glens or ravines, and seldom is more than one pair found in a single woods.

Song.—Similar to that of the Yellow-throated Vireo but longer and more varied.

Nest.—A handsome, finely woven basket, with the outside covered with spider webs and often with lichens; eggs pale creamy white with chestnut specks.

Range.—Eastern N. A., breeding from the Gulf to New Brunswick and Manitoba; winters south of the United States.

Sub-species.—629c. Mountain Solitary Vireo (*alticola*), head darker and back less greenish; Alleghanies from North Carolina to Georgia.

BLACK-CAPPED VIREO.

630. *Vireo atricapillus*. 4½ inches.

Male, with crown and sides of head glossy black, lores and eye-ring white; female, duller colored.

This strange and comparatively rare Vireo frequents brushwood on the prairies of Kansas, Indian Territory and central and western Texas. Their habits in all respects resemble those of the more common Vireos or Greenlets as they are otherwise called.

Notes.—Similar to those of the White-eyed Vireo.

Nest.—Suspended as usual from forked branches at low elevations; made of fibres and bark strips closely woven together with spider webs. The four eggs are pure white, unmarked (.70 x .52).

Range.—Breeds from central and western Texas north to southern Kansas; winters in Mexico.





WHITE-EYED VIREO.

631. *Vireo grisews*. 5 inches.

This species shows a partiality for low, swampy places, covered with briars or tangled thickets of black-berry vines. Their habits are entirely different from any of the preceding Vireos. They do not seem to sing as they eat, but feed in silence, then, the task ended, mount to the tops of the brush and indulge in an endless variety of calls and whistles.

Song.—A great variety of clear whistles and squeaky notes.

Nest.—A bulky structure of strips of bark, leaves, paper, etc., either placed in the branches or partially suspended in a fork; eggs white with minute brown specks (.75 x .55).

Range.—Eastern United States, breeding from the Gulf to Massachusetts and Manitoba; winters in Mexico.

Sub-species.—631a. Key West Vireo (*maynardi*), southern Florida. 631b. Bermuda White-eyed Vireo (*bermudianus*), resident in the Bermudas. 631c. Small White-eyed Vireo (*micrus*); southeastern Texas.

BLACK AND WHITE WARBLER.

636. *Mniotilta varia*. 5¼ inches.

Male, heavily streaked with black below; female, with only a few streaks on the sides.

These Warblers are usually known as Black and White Creepers because of their habit of creeping along the limbs and branches of trees. They are abundant in northern United States, being found in open woods, swamps and often in parks, gleaning insects and grubs from crevices in the bark.

Song.—A weak, thin, wiry "tsee, tsee, tsee."

Nest.—Of grasses and strips of bark on the ground at the foot of a stump or tree trunk or beside a rock; they lay four or five eggs, white with a wreath of reddish brown around the large end (.65 x .55).

Range.—Eastern N. A., breeding from Virginia and Louisiana north to Labrador and Hudson Bay; winters in northern South America.





PROTHONOTARY WARBLER.

637. *Protonotaria citrea*. $5\frac{1}{4}$ inches.

Whole head and underparts intense yellow, almost orange on the head of the male; tail with white spots near the tip; female, duller.

A common species in the interior, found in bushy swamps and the willows around the borders of pools and lakes; they are found in the latter localities with Tree Swallows and often Chickadees—all nesting in holes in hollow stubs along the bank, they being one of the few members of this family to make use of such locations for their nests.

Song.—A loud, ringing “tweet, tweet, tweet.”

Nest.—In hollow stubs near or over water, the cavity of the stump being partially filled with moss, leaves and grasses hollowed on the top to receive the four to six creamy-white eggs which are heavily spotted over the entire surface with reddish brown (.72 x .55).

Range.—Eastern U. S., breeding from the Gulf north to Virginia, Illinois and Minnesota; winters in Central America.

SWAINSON WARBLER.

638. *Helinaia swainsonii*. 5 inches.

Upper parts brownish; underparts whitish; a white superciliary stripe and a brown stripe through the eye.

Some of the habits of this species are similar to those of the last but they are even more aquatic; they like swamps or stagnant pools thickly grown with rushes and tangled underbrush; unless cognizant of their habits, one would never look for a Warbler in the places frequented by these birds in company with Least Bitterns and Marsh Wrens. Until within a few years these were regarded as rare birds but are now found to be not uncommon in certain of the South Atlantic states, notably Georgia.

Song.—A series of descending, loud, clear whistles with a ventriloquial effect.

Nest.—Quite large structures consisting mostly of leaves with strips of bark, roots and pine needles. The four or five eggs are plain white, being the only eggs of American Warblers that are unmarked.

Range.—Southeastern U. S. from Georgia to Louisiana and north to North Carolina and Missouri.





WORM-EATING WARBLER.

639. *Helmitheros vermivorus*. $5\frac{1}{2}$ inches.

Crown buffy with two black stripes; back, wings and tail olive green with no white markings; below buffy white.

These birds are very unsuspicious and easy to approach; they spend the greater portion of their time on or near the ground; they are very fond of spiders and find quantities by overturning bits of bark and leaves. They also glean part of their living from the under side of the foliage much as do the Vireos. They are met with in open woods and brush-grown pastures.

Song.—A weak, rapid chipping.

Nest.—On the ground in depressions under logs, stones or bushes; of leaves and grass, lined with fine grass or hair; eggs four or five in number, white, spotted principally around the large end with brownish (.70 x .55).

Range.—Eastern U. S., breeding from the Gulf north to Connecticut, Ohio and Iowa; winters in Central America.

BACHMAN WARBLER.

640. *Helminthophila bachmanii*. 4¼ inches.

Male, with a yellow forehead, shoulders and underparts; black cap and breast patch; female, duller and with less black.

This species was first discovered by Dr. John Bachman near Charleston, S. C., in which state and Georgia most of the specimens have been secured since. It is a comparatively rare bird and is known to breed only in Missouri, where a nest was found several years ago.

Song.—An insignificant warble or twitter.

Nest.—Of grasses and shreds of bark, on the ground as is usual with this genus. Eggs white with wreaths of chestnut around the large end (.65 x .50).

Range.—Southeastern U. S., north to North Carolina and west to Missouri.

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Lawrence Warbler.

BLUE-WINGED WARBLER.

641. *Helminthophila pinus*. $4\frac{3}{4}$ inches.

Crown and underparts yellow; a narrow black line through the eyes; two broad whitish wing bars.

A common bird of the southeastern states and north to Connecticut, frequenting open woods, thickets and gardens. They are ground birds, spending most of their time on the ground or in low bushes which they clean of the insects which are destructive.

Song.—A loud, rapid chirrup, similar to that of the Grasshopper Sparrow but loud and distinct.

Nest.—Of leaves and strips of bark, lined with fine grasses; on the ground in clumps of weeds or black-berry vines; eggs white, sparingly spotted around the large end with rufous (.65 x .50).

Range.—Eastern U. S., breeding north to southern Connecticut and Wisconsin; winters in the tropics.

Hybrids.—Lawrence Warbler, which is a hybrid between this species and the next; it has the general plumage of this species with the black ear patches and throat of the Golden-winged Warbler. It is found chiefly in southwestern Connecticut and New York.

GOLDEN-WINGED WARBLER.

642. *Helminthophila chrysoptera*. 5 inches.

Crown and two large wing bars yellow; throat and ear patches black; rest of plumage gray and white; female with less black.

The distribution of this beautiful Warbler is about the same as that of the last, with which it seems to have many habits in common. They seem to prefer low ridges and side hills covered with small bushes.

Song.—A slowly chanted "chee, chee."

Nest.—Of leaves, rootlets, strips of bark and grass; located near the ground in small bushes after the style of the Chestnut-sided Warbler, but the nest does not resemble that of the latter bird; eggs white with brown specks (.62 x .48).

Range.—Eastern U. S., breeding north to Connecticut and Michigan; winters in Central America.

Hybrid.—Brewster Warbler is a hybrid between this species and the last. It resembles the Golden-winged Warbler without the black, but with a yellow patch on the breast and the black line of the Blue-wing through the eye.





NASHVILLE WARBLER.

645. *Helminthophila rubricapilla*. 4 $\frac{3}{4}$ inches.

Male with a brown crown patch; female duller colored and with no crown patch. Dry side hills covered with young trees are favorite resorts for the Warblers. They conceal their nests on the ground under tufts of dead grass or overhanging stones. They are often rather shy and hard to sight, but you can usually hear their song, a lazy sounding "ker-chip-chip-chip-cherr-wee-e-e," ending in a short trill. These birds breed in the northern half of the U. S. and southern Canada, wintering in Central America. A sub-species is found on the Pacific coast.

ORANGE-CROWNED WARBLER.

646. *Helminthophila celata*. 5 inches.

This species is fairly common in the Mississippi Valley but is rare in New England. Its habits are much like those of the last species and it is often mistaken for that bird. These birds breed only north of the U. S. and winter in Mexico. A sub-species, the Lutescent Warblers, nests from California to Alaska.

TENNESSEE WARBLER.

647. *Helminthophila peregrina*. 5 inches.

Male, with a gray head and greenish back; female, with the top of the head the same color as the back.

A dull-colored bird that, with the exception of the bill, bears a strong resemblance to some of the Vireos. Like many others of our birds, this one has received an inappropriate name, because the first specimen was shot on the banks of the Cumberland River, while the bird is no more abundant in Tennessee than in other states during migration.

Song.—A simple ditty similar to that of the Chipping Sparrow.

Nest.—Either on the ground or at low elevations in bushes; of grasses and fibres lined with hair; eggs white, sparsely specked with reddish brown (.62 x .45).

Range.—Eastern N. A., breeding from the northern parts of the northern tier of states northward to the limit of trees; winters in Central and South America.





PARULA WARBLER.

648. *Compsothlypis americana*. 4½ inches.

In the summer Parulas are found in wet swamps where the ground is covered with a carpeting of moss which only partially keeps your feet from the water below; the dead trees are covered with a growth of long, drooping moss; the ends of this moss are turned up and formed into a neat cradle within which the eggs are laid.

Song.—A little lisping trill.

Range.—Breeds in the southern half of the U. S. The Northern Parula (*usnea*), No. 648a, breeds in the northern half of the U. S. and southern Canada; it is brighter colored than the southern form. Both varieties winter from the Gulf States southward.

SENNETT WARBLER.

649. *Compsothlypis nigrilora*. 4½ inches.

A smaller similar bird from southern Texas. Note the black ear patches and lack of black on breast.

CAPE MAY WARBLER.

650. *Dendroica tigrina*. 5 inches.

Male, with a chestnut wash on the ears and throat; female, duller and with little or no chestnut.

In the greater part of eastern North America, Cape May Warblers are regarded as rare birds; they appear to migrate in compact bodies, not spreading out over the country as do most of the others; consequently they may be very common in restricted areas while lacking entirely in others. I have never met with but two specimens in Massachusetts. While passing through the United States you may meet with them in open woods, parks or in shade trees along the streets of cities.

Song.—A thin, high-pitched whistle repeated several times.

Nest.—Of small cedar twigs lined with horse hair, placed within a few feet of the ground in small cedar trees; eggs white spotted with brown (.68 x .50).

Range.—Eastern N. A., breeding in eastern Canada and, rarely, northern New England; winters south of the U. S.





YELLOW WARBLER.

652. *Dendroica æstiva*. 5 inches.

Male, with chestnut streaks on the sides; female, duller and without the streaks.

An abundant bird everywhere in woodland, park, orchard or garden and one of the most vivacious of the family. Arrives in the north soon after May first and is seen flitting about like a gleam of sunshine snatching insects from the foliage or darting after them in the air. Often known as the Summer Yellowbird. It frequently nests in garden or orchard trees, where it is a most welcome tenant.

Song.—A sharp, vigorous “che-wee, che-wee, che-wee.”

Nest.—A beautiful and compact structure of vegetable or plant fibres firmly quilted together, and fastened to upright forks of bushes or trees at low elevations. Willows along creeks, ponds or rivers are favorite resorts.

Range.—N. A., breeding from the Gulf to Labrador and Alaska; winters in Central America.

BLACK-THROATED BLUE WARBLER.

654. *Dendroica caerulescens*. 5¼ inches.

Male, grayish blue above and with a black face, throat, breast and sides; female, grayish olive above, whitish below. Both sexes always have a white patch or speck at the base of the primaries.

You will find these birds in damp woods or swamps, or less often in parks or open woods. They are usually seen at low elevations in scrubby underbrush. Their notes are very peculiar and will draw attention to them anywhere.

Song.—A deep grating whistle with a sharply rising inflection, "zee-zee-zwee."

Nest.—In deep, swampy woods, especially common in laurel; of grape vine bark and rootlets lined with fine black roots and hair; the four eggs are white or buffy white with reddish-brown spots and blotches.

Range.—Eastern N. A., breeding from Connecticut (sparingly) and Michigan north to Labrador and Hudson Bay; winters in Central America. 654a. Cairns Warbler (*cairnsi*) is said to be darker on the back; found in the southern Alleghanies.





MYRTLE WARBLER.

655. *Dendroica coronata*. 5½ inches.

Yellow patches on crown, sides and rump; outer tail feathers with large white spots; female duller and browner.

During migrations these pretty birds are very abundant in the United States. They usually travel in large flocks so that a small piece of woodland is literally flooded with them when they pause in the flight to feed upon insects or small berries. They are often known as Yellow-rumped Warblers.

Song.—A clear, broken trill or warble.

Nest.—Usually in coniferous trees, though sometimes in others, and at low elevations; of plant fibres and grasses; the four or five eggs are white, spotted and blotched with reddish brown (.70 x .54).

Range.—Eastern N. A., breeding from northern New England and Minnesota northward; winters south of the U. S.

MAGNOLIA WARBLER.

657. *Dendroica magnolia*. 5 inches.

Male, with black ear patch, back, and necklace; female, with the black replaced with grayish; both sexes have a yellow rump and white spots midway of the tail feathers.

One of the prettiest of the Warblers and one of the least timid. I have often had one or more of these birds follow me the whole length of a piece of woods apparently out of curiosity, coming down to the nearest twigs within arms' reach of me. Birch woods are their favorites during migrations, although a few of them will be found almost anywhere.

Song.—A short, rapidly uttered warble.

Nest.—Usually in coniferous trees, far out on the longer branches, where they are often difficult to get at; of rootlets lined with fine black rootlets and hair; four or five white eggs with small spots of chestnut around the large end (.60 x .48).

Range.—Eastern N. A., breeding from Massachusetts and Michigan northward; winters south of the U. S.





CERULEAN WARBLER.

658. *Dendroica carula*. 5 inches.

Above grayish blue with black streaks, below white with a bluish breast band and streaks on the sides; female washed with greenish above and yellowish below; both have white patches near the ends of the tail feathers.

These dainty little Warblers are not abundant anywhere, but seem to be most so in the central states. They are birds of the tree tops, rarely coming down so that they can be distinctly seen. They may be more common than supposed, for so small a body at such heights can readily be overlooked.

Song.—A little warbling trill, “zee-zee-ze-ee-eep.”

Nest.—In the higher outer branches of large trees usually in deep woods; compactly made of dry grasses and cobwebs, adorned with a few lichens; eggs white speckled at the large end with brownish (.65 x .50).

Range.—Interior portions of the U. S., breeding north to Michigan and Minnesota; east to western New York and, rarely, southern New England; winters in northern South America.

CHESTNUT-SIDED WARBLER.

659. *Dendroica pensylvanica*. 5 inches.

Yellow crown, black line through eye and on side of throat, and broad chestnut stripe on sides; female, paler and with less chestnut; young greenish yellow above and with no chestnut.

Nearly every swamp or bush-covered pasture within their range shelters one or more pairs of these Warblers. While they sometimes feed in the tree tops, they are birds of the lower foliage and are usually seen in low bushes.

Song.—Similar to that of the Yellow Warbler but more choppy.

Nest.—In low bushes or weeds, and often in sweet fern or briars; similar to that of the Yellow Warbler but coarser, being made more with grasses than with fibres, situated in upright forks or attached to several weed stalks; eggs white, specked around the large end with reddish brown (.68 x .50).

Range.—Eastern N. A., breeding from New Jersey and Ohio north to Manitoba and New Brunswick; winters south of U. S.





BAY-BREASTED WARBLER.

660. *Dendroica castanea*. 5½ inches.

Male, with crown, throat and sides rich chestnut; female, paler; young and adults in winter, greenish above, streaked with black and with a trace of chestnut on the flanks.

These Warblers are only locally abundant during migrations, while in eastern New England they are rare. They are active insect hunters, darting rapidly about the tree tops or, less often, in brush; their habits most nearly resemble those of the Chestnut-sided Warbler.

Song.—A low, liquid warble.

Nest.—At low elevations in trees in swampy woods; compact, cup-shaped structures made of fine shreds of bark, rootlets and grass; eggs bluish white, finely speckled around the large end with reddish brown (.70 x .50).

Range.—Eastern N. A., breeding from the northern edge of the U. S. northward; winters south of the U. S.

BLACKBURNIAN WARBLER.

662. *Dendroica blackburniæ*. 5¼ inches.

Male, black above with large white patch on wing, and bases of outer tail feathers white; throat and breast intense orange; female, duller and with the orange replaced by dull yellow.

Without exception, this is the most exquisite of the whole family; it is the most eagerly sought bird by bird lovers, in the spring. Some years they are very abundant, while others few are seen, their routes of migration evidently varying. They arrive about the time that apple trees are in bloom, and are frequently seen among the blossoms, dashing after insects.

Song.—A high-pitched lisping “zwe-zwe-zwe-see-ee-ee,” ending in a thin, wiry tone, almost a hiss; it is very distinct from the song of any other bird.

Nest.—In coniferous trees at any height from the ground; of shreds of bark, fine cedar twigs, rootlets, etc.; eggs greenish white blotched with brown.

Range.—Eastern N. A., breeding from Massachusetts (rarely) and Minnesota northward; winters in Central America.





BLACK-POLL WARBLER.

661. *Dendroica striata*. 5½ inches.

Whole crown black; female, without black cap, greenish gray above streaked with black; young paler than the female.

These birds are one of the latest of the migrants to arrive, reaching northern United States about the last of May, but coming in such numbers that they are found everywhere. While their plumage somewhat resembles that of the Black and White Warbler, their habits are entirely different.

Song.—A high-pitched, hissing whistle similar to that of the Black and White Warbler but uttered more deliberately and with an instant's pause between each note.

Nest.—At low elevations in thick coniferous trees; made of slender twigs, rootlets and lichens, lined with hair or feathers; eggs whitish, thickly spotted with brown (.75 x .52).

Range.—Eastern N. A., breeding from northern New England, Minnesota and Wyoming north to the Arctic regions; winters south of the United States.

YELLOW-THROATED WARBLER.

663. *Dendroica dominica*. 5¼ inches.

Throat, breast and line from eye to bill yellow.

This species has habits very similar to those of the Black and White Creeper, being often seen creeping around the trunks or over the branches of trees with almost as much facility as the Nuthatches. They are southern birds and are only rarely or accidentally found in the northern half of the U. S., and they are one of the few members of the family that winter in the southern parts of our country.

Song.—Loud and similar to that of the Indigo Bunting, but shorter.

Nest.—Usually high up in pines and often concealed in tufts of moss; made of fine twigs and strips of bark, held together with cobwebs and Spanish moss; eggs greenish white, spotted with various shades of brown.

Range.—Southeastern U. S., breeding north to Virginia; winters in the West Indies. 663a. Sycamore Warbler (*albilora*) is like the Yellow-throated, but is white before the eye; found in the Mississippi Valley north to Illinois and Iowa; winters in Mexico.





GOLDEN-CHEEKED WARBLER.

666. *Dendroica chrysoparia*. 4¾ inches.

In some plumages these birds may be confused with the Black-throated Green. Notice that the adult male has a short median line of yellow on the crown, otherwise the top of head and entire back are intense black. Young birds, which bear the closest resemblance to the next species, can be distinguished because their underparts are white, those of the Black-throated Green being tinged with yellow.

These rare Warblers have a very restricted distribution, but are said to be not uncommon within their range.

Notes.—Song with the usual Warbler quality, but entirely distinctive: “sweah-sweah-swee-e-e.”

Nest.—Of strips of bark, usually located in juniper trees six to twenty feet above ground. Eggs white, splashed about the large end with reddish brown (.65 x .50).

Range.—Central Texas southward into Mexico.

BLACK-THROATED GREEN WARBLER.

667. *Dendroica virens*. 5 inches.

Throat black; two wing bars and outer tail feathers white; female with little black on the throat.

A common bird in pine groves in northern United States, or during migrations in birch woods. I have found them most abundant on side hills covered with low-growth pines. They seem to be very nervous and are greatly excited if you appear near their nests. They often have the habit of building several nests, whether with the deliberate intent to deceive or whether because the first was not satisfactory as to location is not known.

Song.—Entirely different from that of any other bird; a rather harsh “zee” repeated six times, with the fourth and fifth syllables lower.

Nest.—Of rootlets and fine grasses, lined with hair; placed high up in pine trees; eggs white with fine brown specks around the large end (.60 x .50).

Range.—Eastern North America, breeding from southern New England and Illinois north to Nova Scotia and Hudson Bay; winters in Central America.





KIRTLAND WARBLER.

670. *Dendroica kirtlandi*. 5½ inches.

Above bluish gray streaked with black; underparts pale yellow streaked on the side with black.

This is one of the rarest of American Warblers, and until 1903 but little was known of their habits or range; in that year they were discovered nesting in Oscoda County, Michigan. They were found near the banks of a river in Jack pines, building on the ground and remaining in the underbrush near it.

Song.—Loud and clear and said to resemble that of the Maryland Yellow-throat.

Nest.—In depressions in the ground at the foot of pine trees and probably also under bushes; made of strips of bark and vegetable fibres; eggs white, wreathed about the large end with brown (.72 x .56).

Range.—Breeds in Michigan and migrates southeast through Ohio, Missouri, Tennessee, Virginia, the Carolinas and Florida to the Bahamas.

PINE WARBLER.

671. *Dendroica vigorsii*. 5½ inches.

Greenish yellow above, brighter below; two white wing bars and white spots on outer tail feathers; female, duller and grayer.

Found only in tracts of coniferous trees, except during migrations, when they are often in company with other kinds of Warblers. They like dry hillsides covered with scrub pines and are often quite abundant in such localities. They are rather quiet in their manners, creeping about among the tree tops like Black and White Warblers and occasionally giving their clear little trill.

Song.—Nearest like that of the Chipping Sparrow, but easily distinguishable; a long, clear trill.

Nest.—A small, compact structure of black rootlets lined with hair; placed in the extreme tops of scrub pines, where it is very difficult to see them; eggs white specked with reddish brown (.62 x .50).

Range.—Eastern N. A., breeding from the Gulf north to southern Canada; winters in southern U. S.





PALM WARBLER.

672. *Dendroica palmarum*. 5¼ inches.

No wing bars, but white spots on the outer tail feathers; crown, cheeks and streaks on the sides chestnut.

During migrations you will find these Warblers along roadsides, in open woods and scrubby pastures. They are of a very nervous temperament and, when at rest or when walking, are continually flirting their tail, a habit which none of the Warblers, except the Water-thrush, seem to have. They are one of the earliest of the family to appear in the spring, reaching northern United States in April.

Song.—A short trill; an ordinary Warbler chirp.

Nest.—On the ground under shrubs, or sunken in moss; made of fine grasses, bark and moss; the four eggs are creamy white with reddish-brown spots.

Range.—Interior of N. A., breeding in the interior of British America; winters in southern U. S. 672a. Yellow Palm Warbler (*hypochrysea*) is brighter yellow below; it is found in eastern N. A., breeding north of Nova Scotia; winters along the Gulf.

PRAIRIE WARBLER.

673. *Dendroica discolor*. 4¾ inches.

Above greenish with chestnut spots on the back; below yellow with black markings; female paler.

These are very locally distributed birds and will often be found breeding abundantly in a small patch of brush-covered pasture, while many others apparently just as well suited for their purposes will be shunned by them. They are very active, flitting rapidly from one bush to another, the male occasionally mounting to a bush top to hurriedly deliver his song, then diving out of sight below the foliage.

Song.—An energetic, rather harsh “zee-zee-zee-ee” on an ascending scale.

Nest.—A neat cup of grasses and vegetable fibres, lined with black rootlets or horsehair; located in low shrubs or bushes from one to two feet above ground; eggs whitish with blackish-brown specks about the large end (.65 x .48).

Range.—Eastern U. S., breeding from the Gulf to Massachusetts and southern Michigan; winters in the West Indies.





OVEN-BIRD.

674. *Seiurus aurocapillus*. 6 inches.

Crown orange brown bordered by black; no white in wings or tail.

This bird is found in open woods, where it builds its arched nest on the ground among the leaves or pine needles. It is the peculiar oven-like construction of their nests that gives them their name. They are essentially ground birds, only mounting to the lower branches of trees to sing or when scolding an intruder.

Song.—A peculiar ascending song resembling the word teacher, repeated five or six times and gathering strength and volume with each syllable; call, a sharp chip.

Nest.—Of leaves, strips of bark and grass arched over the top so as to leave a very small opening; placed on the ground in woods; four to six white eggs spotted with reddish brown (.78 x .58).

Range.—Eastern N. A., breeding in the northern half of the U. S. and north to Labrador; winters chiefly south of U. S.

WATER-THRUSH.

675. *Seiurus noveboracensis*. 6 inches.

This species always has a yellowish tinge to the underparts and the stripes beneath are narrow, but prominent. These Warblers are found in tangled underbrush near water. They have a habit of continually flirting their tails, thus giving them the local name of Water-Wagtail. Their call is a sharp metallic "chink"; their song a loud, liquid "quit-quit-quit-que-quewe-u." Breeds from the northern edge of the U. S. northwards; winters south of U. S.

LOUISIANA WATER-THRUSH.

676. *Seiurus motacilla*. 6 $\frac{1}{4}$ inches.

Larger, grayer above and whiter below than the preceding; stripes fewer and broader. This is a more southern species and breeds from the Gulf to Connecticut and southern Minnesota. Its notes are wild and ringing, like those of the last. They build their nests under the roots of trees or under the edges of overhanging banks. The eggs are creamy white, boldly blotched with brown.





KENTUCKY WARBLER.

677. *Opornornis formosa*. 5½ inches.

Crown and ear coverts black, underparts and line over eye yellow; no white in the plumage.

These birds are found in about such localities as are frequented by Ovenbirds, but with a preference for woods which are low and damp. They are locally common in some of the southern and central states. They are active gleaners of the underbrush, keeping well within the depths of tangled thickets. Like the Maryland Yellow-throat, which has similar habits to those of this bird, they are quite inquisitive and frequently come close to you to investigate or to scold.

Song.—A loud, musical, Wren-like warble.

Nest.—A bulky structure of leaves, bark and grasses, lined with black rootlets or horsehair; placed on the ground in bunches of weeds or at the foot of a small bush; the four or five eggs are quite heavily speckled, chiefly at the large end, with reddish brown.

Range.—Eastern U. S., breeding from the Gulf north to New York and southern Michigan; winters in northern South America.

CONNECTICUT WARBLER.

678. *Opornornis agilis*. 5½ inches.

Male with a bluish slate-colored head; eye ring white and completely encircling the eye; female with a saffron-colored head.

In the United States we find this Warbler only in spring and fall migrations. They appear to be much more rare in the spring than in the fall; while I have seen perhaps a hundred in the fall I have never seen but one in spring. They frequent wild tangled thickets, such as you often find Maryland Yellow-throats in. As they do most of their feeding upon the ground and remain in the depths of the thickets, they are rarely seen unless attention is drawn to them.

Song.—Somewhat like that of the Maryland Yellow-throat; call, a sharp, metallic “peenk.”

Nest.—In thickets or clumps of briars, either on the ground or just above it; made of strips of bark and skeletons of leaves, lined with hair; eggs whitish sparingly specked at the large end with brown (.75 x .56).

Range.—Eastern N. A., breeding north of the U. S.; winters in northern South America.





MOURNING WARBLER.

679. *Opornornis philadelphia*. 5½ inches.

Similar to the last, but with no eye ring and with a black patch on the breast.

These birds are found in swamps and thickets, as well as among the bushes and weeds along walls, fences and the edges of woods. Their habits are like those of the Maryland Yellow-throats, they being found on or near the ground, scratching about among the leaves or gleaning insects from the foliage of the low shrubbery. They appear to be the most abundant in the middle States and northward.

Song.—Similar to the liquid song of the Water-Thrush; call, a sharp “peenk,” like that of the last.

Nest.—On or near the ground in thickets or tangled vines; made of fine bark strips and fibres, lined with hair; eggs white specked with reddish brown (.71 x .54).

Range.—Eastern U. S., breeding from northern New England, Ohio and Michigan north to southern Canada; winters south of the U. S.

MARYLAND YELLOW-THROAT.

681. *Geothlypis trichas*. 5¼ inches.

One of our most common birds in swamps and also in shrubbery along roadsides or walls. They are very inquisitive, and their bright eyes will peek at you from behind some leaf or shrub as long as you are in sight.

Song.—A lively "witchity-witchity-witch"; call, a deep chip; also a rattling note of alarm.

Nest.—Of grapevine and grasses, located in clumps of weeds on or nearly touching the ground; eggs white with brown specks (.70 x .50).

Range.—Eastern N. A., breeding from the Gulf to New Jersey.

Sub-species.—681a. Western Yellow-throat (*occidentalis*), said to be brighter; found chiefly west of the Rockies, but east to the Plains. 681b. Florida Yellow-throat (*ignota*), South Atlantic and Gulf coasts. 681d. Northern Yellow-throat (*brachidactyla*), slightly larger and deeper colored; found in northeastern U. S. and southeastern Canada, west to Dakota and south through the Mississippi Valley to the Gulf.





YELLOW-BREASTED CHAT.

683. *Icteria virens*. 7½ inches.

Breast yellow, lores black, line over the eye and underparts white; no white on wings or tail.

Dry side hills and ravines covered with thick underbrush are the places to look for Chats. Usually if they are present they will make themselves heard long before you see them. They are one of the most odd birds both in action and song. They are mimics of the highest order and can make any kind of whistle or squawk, but all their vocal efforts seem to require a great deal of flirting of the tail and twisting of the head. They even jerk their tail up and down while flying, this making them appear extremely ludicrous.

Songs.—A varied medley of whistles and calls.

Nest.—Near the ground in tangled thickets; of grass, weeds, etc.; eggs whitish plentifully specked with reddish brown (.90 x .70).

Range.—Eastern U. S., breeding north to Massachusetts and southern Minnesota; winters in Central America. 683a. Long-tailed Chat (*longicauda*) is found in the U. S. from the Plains to the Pacific.

HOODED WARBLER.

684. *Wilsonia citrina*. 5½ inches.

Male, with yellow forehead and cheeks, the rest of the head and throat being black; female, much duller with little or no black; both sexes have white spots on the outer tail feathers, but no bars on the wings.

This is one of the liveliest of the family, being very active in catching insects on the wing like a true Fly-catcher; because of this habit all the members of this genus are often called Fly-catching Warblers. They also have a habit of often spreading and folding their tail as they flit through the underbrush that they frequent.

Song.—A clear, liquid series of whistles; call, a sharp chip.

Nest.—Within a few inches of the ground in low underbrush or vines; made of leaves, bark, etc., held firmly together with cobwebs; the four or five eggs are white, profusely spotted with reddish brown.

Range.—Eastern U. S., breeding from the Gulf to southern Connecticut and Michigan; winters south of the U. S.





WILSON WARBLER.

685. *Wilsonia pusilla*. 5 inches.

Male, with black crown patch; female, with the crown greenish like the back.

These little fly-catching Warblers are abundant in the United States during migrations, being found in woods or swamps, and very often in apple trees when they are in bloom. They fly about among the outer branches snatching insects from the foliage or blossoms, and often dashing out to catch one that is flying by. Their natural pertness is intensified by their very attractive plumage which harmonizes perfectly with green leaves.

Song.—A simple and rather weak trill.

Nest.—Of leaves and bark, imbedded in the ground under bushes on the edges of swamps or woods; eggs white, specked with reddish brown (.60 x .48).

Range.—Eastern N. A., breeding from the northern edge of the U. S. northward; winters in Central America. Two sub-species are found west of the Rockies.

CANADIAN WARBLER.

686. *Wilsonia canadensis*. 5½ inches.

Male, with a necklace of black spots, white eye ring and lores; female, and young, with only a slight indication of the necklace.

These Warblers travel northward in company with many other kinds, always keeping in the underbrush near the ground, except when they come out into orchards and parks. Like the two last, they are very lively, rarely remaining still for more than a few seconds, before they must dash after some tempting morsel that is flying by.

Song.—A loud liquid warble, most nearly resembling that of the Water-Thrush; call, a sharp, querulous chip.

Nest.—Of rootlets and strips of bark, under roots of trees or shrubs or at the foot of stumps in the moss; the four eggs are white with a wreath of chestnut spots around the large end (.68 x .50).

Range.—Eastern N. A., breeding from Massachusetts and Michigan northward; winters in northern South America.





AMERICAN REDSTART.

687. *Setophaga ruticilla*. 5½ inches.

Male, black, orange and white; female, grayish, yellow and white; it requires two or three years to attain the black plumage of the male, in the intermediate stages they are sometimes strangely mottled.

In the northeastern half of the United States, these are one of the commonest and most active of the species. Both the males and females seem to be proud of their handsome plumage and are continually spreading and closing their tails. They are equally happy whether in the tree tops or near the ground, and are as often found in the one place as the other.

Song.—"Che-wee, che-wee, che-wee," very similar to that of the Yellow Warbler and also the Chestnut-sided Warbler.

Nest.—Of plant fibres and grasses in forks of bushes or trees, usually at greater heights than those of the Yellow Warbler; eggs whitish specked with brown.

Range.—N. A., rare west of the Rockies, breeding from North Carolina and Missouri northward; winters south of the U. S.

AMERICAN PIPIT; TITLARK.

697. *Anthus rubescens*. 6½ inches.

These are Arctic birds that spend the winter months in the United States. We find them in flocks along roadsides or in fields, feeding upon weed seeds. They are shy and take wing readily, uttering sharp whistles as they wheel about in the air. They are always restless and stay in a place but a short time. They nest on the ground in northern Canada. Eggs grayish, profusely specked with brown.

SPRAGUE PIPIT.

700. *Anthus spraguei*. 6¼ inches.

Upper parts streaked with buff and blackish; below pale buffy with black markings. These birds are found on the Plains from the Dakotas to Hudson Bay in summer, migrating to Mexico in winter. They resemble the European Skylark in their habit of soaring to a great height while singing. Their song is very melodious, resembling that of the Bobolink. Their nests are depressions in the ground, lined with grasses. Eggs grayish, finely specked with purplish gray (.87 x .67).





SAGE THRASHER.

702. *Oroscoptes montanus*. $8\frac{3}{4}$ inches.

This species is often known as the Mountain Mockingbird because of the brilliance of its song, a very varied performance, long continued and mocking that of many other species. They inhabit sage-brush regions and are partial to the lower portions of the country, although frequently met in open mountains. They are not shy and can readily be located by their voices.

Nest.—In bushes, especially the sage and cactus; a loose structure made of bark-strips, small twigs and coarse grasses, lined with fine rootlets. The three or four eggs have a rich greenish-blue ground, spotted with bright reddish brown (.95 x .70).

Range.—Sage-brush regions of western United States from the Plains to the Pacific; winters in Mexico and Lower California.

MOCKINGBIRD.

703. *Mimus polyglottos*. 10½ inches.

General colors, gray and white; bases of primaries and outer tail feathers with white.

This is the great vocalist of the south, and by many is considered to be the most versatile singer in America. It is found in gardens, pastures and open woods. All its habits are similar to our Catbird, and like that species, it is given to imitating the notes of other birds.

Song.—An indescribable medley, sometimes very sweet and pleasing, at others, harsh and unmusical.

Nest.—Usually built in impenetrable thickets or hedges, or again in more open situation in the garden; made of twigs and rootlets, lined with black rootlets; the four or five eggs are bluish green with blotches of reddish brown (.95 x .70).

Range.—Southern U. S., breeding north to New Jersey (and casually farther) and Ohio; winters in the South Atlantic and Gulf States. 703a. Western Mockingbird (*leucopterus*) is found in southwestern U. S., north to Indian Territory and California.





CATBIRD.

704. *Dumetella carolinensis*. 9 inches.

General color dark gray with a black cap and chestnut under tail coverts.

This is one of the most common birds throughout the United States, being found equally abundantly in gardens, swamps and scrubby pastures. They are very persistent songsters and have a large repertoire of notes, as well as being able to imitate those of many other birds. They delight in spending an hour or more at a time, perched in a bush or tree top, singing, and apparently making their song up as they go along, for it is an indescribable medley interspersed with various mews and cat calls.

Song.—A medley like that of the Mockingbird; sometimes pleasing, sometimes not.

Nest.—In hedges or thickets; made of twigs, rootlets and grass, lined with fine black roots; the four eggs are plain greenish blue (.95 x .70).

Range.—N. A., breeding from the Gulf to New Brunswick and Hudson Bay; rare west of the Rockies; winters from the Gulf States southward.

BROWN THRASHER.

705. *Toxostoma rufum*. 11½ inches.

Above bright reddish brown; below white with black spots.

Taken as a whole, I think that the song of this Thrasher is the most musical and pleasing of any that I have ever heard. It has a similarity to that of the Catbird, but is rounder, fuller and has none of the grating qualities of the song of that species. They apparently have a song of their own and do not deign to copy that of others. They are one of the most useful and desirable birds that we have.

Song.—A bright and cheerful carol, often long continued, but always clear and sweet; call, a clear whistled "wheuu."

Nest.—Of twigs and rootlets, in hedges, thickets or thorn bushes; the four or five eggs are bluish white with numerous fine dots of reddish brown over the entire surface (1.08 x .80).

Range.—Eastern N. A., breeding from the Gulf to southern Canada; winters in the southern half of the U. S.





CACTUS WREN.

713. *Heleodytes brunneicapillus*. 8½ inches.

Cactus groves are the favorite resorts of these large Wrens. Often a bed of cactus not more than thirty feet square will contain the homes of half a dozen pairs of them. Like all the members of the family, they are very sprightly and have violent tempers, scolding anyone or anything that incurs their displeasure.

Nest.—Their nests are placed in cactus or other thorny shrubs; they are very large, purse-shaped affairs with an entrance on the side; they are made of little thorny twigs and grasses woven together, and the interior is warmly lined with feathers. The four or five eggs are creamy white, finely sprinkled with reddish brown (.95 x .65). Two or three broods are often raised in a season.

Range.—Southwestern border of the United States, ranging from southern Texas to California.

ROCK WREN.

715. *Salpinctes obsoletus*. 5¾ inches.

Upper parts stone color, specked with black; rump brownish; underparts whitish with indistinct streaks on the throat.

A common bird on the dry, rocky foothills of the Rockies and westward. They are well named, for their favorite places are among the rocks, where they are always busily engaged in hunting insects or spiders in the crevices. Owing to their colors and their habits of slinking away behind the rocks they are quite difficult to see, but their sweet song is always heard if any of the birds are in the vicinity.

Song.—Very sweet and varied, almost canary-like, but impossible to describe; call, a harsh grating note.

Nest.—Of sticks, weeds, grasses, etc., concealed in crevices among the rocks; the five or six eggs are white, sparingly specked with reddish brown (.72 x .54).

Range.—Western U. S. from the western border of the Plains to the Pacific, north to Dakota and British Columbia; winters from southwestern U. S. southward.





CAROLINA WREN.

718. *Thryothorus ludovicianus*. 5½ inches.

Above rusty brown and below washed with the same, the throat and line over the eye being white.

Like all the Wrens, this one commonly sits or flits about in the brush, with the tail erect over the body; only when singing is it held downward. Their flight is usually only for a short distance, accomplished by rapid wing beats and with a jerking motion of the tail.

Song.—Loud and tinkling, and utterly impossible to describe.

Nest.—In brush heaps, holes in trees, bird boxes or bushes; made of weeds, grass and any trash that they may pick up; eggs, five to seven in number, white, specked with reddish brown (.74 x .60).

Range.—Eastern U. S., breeding from the Gulf north to Connecticut and Illinois; resident. 718a. Florida Wren (*miamensis*) is found in southern Florida. 718b. Lomita Wren (*lomitensis*), found in southern Texas.

BEWICK WREN.

719. *Thryomanes bewickii*. 5 inches.

Above dark brown; below and line over eye whitish; tail blackish with the outer feathers barred with white.

Like all the Wrens, these seem to be very restless and are continually creeping about in brush heaps or along stone walls, fences or over fallen trees or stumps. They are locally abundant in interior United States, in some sections entirely replacing the House Wren.

Song.—A sweet chant of liquid melodious notes.

Nest.—In any location that happens to take the bird's fancy, such as holes in trees, bird boxes, in barns, sheds, etc.; made of straw, grass and trash; eggs white profusely specked with reddish brown.

Range.—Mississippi Valley and the Plains north to South Dakota; east to the Alleghanies and casually to the South Atlantic States. 719c. Texas Bewick Wren (*cryptus*) is found from Texas north to Indian Territory.





HOUSE WREN.

721. *Troglodytes ædon*. $4\frac{3}{4}$ inches.

Above brownish with tail and wings barred; below dull grayish, barred on the flanks with brown.

These are bold, sociable and confiding birds, seeming to prefer men's society, building their nests in bird boxes that are erected for them, or in the most unexpected situations about buildings. They are one of the most beneficial birds that can be attracted to one's yard, feeding wholly upon insects.

Song.—Loud, clear and bubbling over with enthusiasm.

Nest.—Of grass or weeds, stuffed into any crevice that takes their fancy, frequently in bird boxes and holes in orchard trees; eggs white, so minutely and thickly dotted with pinkish brown as to nearly conceal the ground color (.64 x .52).

Range.—Eastern N. A., breeding north to Maine and Manitoba; winters along the Gulf coast. 721b. Western House Wren (*aztecus*) is found from the Plains to the Pacific coast ranges.

WINTER WREN.

722. *Nannus hiemalis*. 4 inches.

Above bright cinnamon, below paler; sides, wings and tail heavily barred with black.

This is the shortest and most stoutly built Wren that we have. They look very pert with their little stubby tail erect over their back. In most of the United States we only see them in the winter, and they are associated, in my mind, with brush heaps in woods and gardens. They will hide in a small pile of brush, running from side to side, so that it is almost impossible to make them leave it.

Song.—A rippling flow of melody, not as loud, but more musical than that of the House Wren.

Nest.—In brush heaps, tin cans, hollow stumps or crevices in unoccupied buildings; made of piles of grass, weeds, etc., lined with feathers; eggs white, sparingly specked with reddish brown (.65 x .50).

Range.—Eastern N. A., breeding from the northern edge of the U. S. northward; winters from its breeding range to the Gulf.





SHORT-BILLED MARSH WREN.

724. *Cistothorus stellaris*. 5¼ inches.

This species can readily be distinguished from the next, as the whole crown is streaked with black and white, whereas that of the Long-bill is uniformly colored. Both species are marsh birds, at home among the reeds, to which they attach their globular woven nests, with the little entrance in the side. The eggs of this species are pure white. It is found in eastern N. A., from the Gulf to southern Canada.

LONG-BILLED MARSH WREN.

725. *Telmatodytes palustris*. 5¼ inches.

The bill of this species is .5 inch or more in length; that of the last is .4 inch or less. This species is by far the most abundant. Its eggs are so profusely dotted with dark brown as to appear a chocolate color. Breeds from the Gulf to Massachusetts and Manitoba.

BROWN CREEPER.

726. *Certhia familiaris americana*. 5½ inches.

Tail feathers stiffened and pointed; rump rusty.

These odd birds are fairly common throughout the United States in winter. They will be found in woods always climbing up tree trunks, carefully investigating every crevice in the bark for larvæ or grubs. When they reach the top of one tree, they drop to the foot of the next and continue the operation. They are very tame, not seeming to comprehend that danger can befall them, for they will allow anyone to approach very closely, so that they have been caught under a hat.

Song.—A very faint trill; call, a weak “tseep,” hardly noticeable unless very near them.

Nest.—Of twigs, moss and bark, behind loose bark on dead trees or stumps, usually not high above the ground; eggs white, specked with reddish brown.

Range.—Eastern N. A., breeding from northern New England and Minnesota northward; winters throughout the U. S.





WHITE-BREASTED NUTHATCH.

727. *Sitta carolinensis*. 6 inches.

Male with the crown bluish black; female with the crown gray; both sexes with chestnut under tail coverts.

These birds seem to be the very opposite of the Brown Creepers. Their tails are short and square, and nearly always pointed toward the zenith, for Nuthatches usually clamber among the branches and down the tree trunks, head first.

Note.—A nasal “yank-yank,” and a repeated “ya-ya,” all on the same tone.

Nest.—In cavities of hollow limbs and trunks of trees at any elevation from the ground; the cavity is filled with leaves and usually lined with feathers; eggs white, spotted with reddish brown (.75 x .55).

Range.—Eastern United States, breeding from the Gulf to southern Canada; resident in most of its range. 727b. Florida White-breasted Nuthatch (*atkinsi*) is slightly smaller; other races are found west of the Rockies.

RED-BREASTED NUTHATCH.

728. *Sitta canadensis*. 4½ inches.

These birds have the same habits as the larger Nuthatch, but are often found in flocks, while the White-breasted are usually in pairs and in the fall accompanied by their young. In the winter we usually find them in coniferous trees, where we can locate them by their nasal calls or by the shower of bark that they pry from the tree in their quest for grubs.

Song.—A nasal “yank-yank,” like that of the last, but not so loud, and usually repeated more times.

Nest.—In hollow stumps and limbs, the area about the opening nearly always being coated with fir balsam, for what purpose is not known; the cavity is lined with grasses and feathers; they lay from four to seven white eggs, which are very thickly spotted with reddish brown (.60 x .50).

Range.—N. A., breeding from the northern parts of the northern tier of states, northward; winters south nearly to the Gulf and southern California.





BROWN-HEADED NUTHATCH.

729. *Sitta pusilla*. 4¼ inches.

Crown brownish with a white patch on the nape.

These diminutive Nuthatches are found in the southern states. Their general habits do not appear to differ from those of other members of the family. They nest very early, commencing to excavate their holes in January and having complete sets of eggs as early as the middle of February.

They usually are found in small flocks and at night they will often be seen flying to the top of a pine where they sleep, all huddled together.

Notes.—A continued twittering “nya-nya.”

Nest.—In cavities of dead limbs or stumps, sometimes only a few inches from the ground, and again as high as fifty feet; they lay five or six eggs, white with numerous spots of reddish brown (.62 x .49).

Range.—South Atlantic and Gulf States, breeding north to Virginia.

TUFTED TITMOUSE.

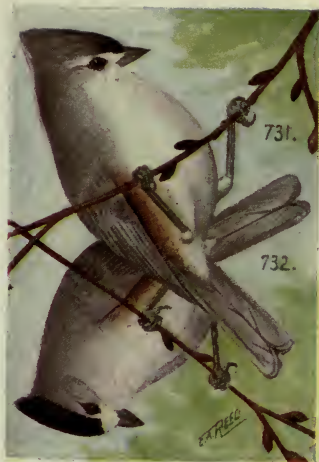
731. *Bæolophus bicolor*. 6 inches.

Head crested, forehead black, flanks brownish. The habits of this large Titmouse are almost identical with those of Chickadees. They swing from the ends of twigs in all manner of positions and creep about trunks, peering in crevices of the bark for insects. They are common in the southern states, breeding from the Gulf to New York and Illinois; they are resident in the southern portion of their range. Their eggs are laid in soft nests of down and feathers in hollow stumps. Their notes are loud, clear whistles.

BLACK-CRESTED TITMOUSE.

732. *Bæolophus atricristatus*. 6 inches.

Crest black, forehead white, flanks rusty. The habits of this species are just like those of the very similar preceding one. The birds are very tame, especially so during the nesting season, when they will allow themselves to be lifted from the nest by hand. They are found in southern and western Texas.





BLACK-CAPPED CHICKADEE.

735. *Penthestes atricapillus*. $5\frac{1}{4}$ inches.

The Chickadees are one of the most popular birds that we have, owing to their uniform good nature even in the coldest weather, and their confiding disposition. They are common about farms and even on the outskirts of large cities they will come to feasts prepared for them on the window sill.

Notes.—A clear “phe-be”; a “chick-a-dee-dee-dee” or “dee-dee-dee,” and several scolding or chuckling notes.

Nest.—In hollow stumps at any elevation from the ground but usually near the ground, and most often in birch stubs; eggs white, sparingly specked with reddish brown.

Range.—Eastern N. A., breeding in the northern half of the U. S. and northward; resident.

736. Carolina Chickadee (*Parus carolinensis*) is similar to the last but smaller and with no white edges to the wing feathers; length $4\frac{1}{2}$ inches; found in southeastern U. S., breeding north to Virginia and Ohio.

HUDSONIAN CHICKADEE.

740. *Penthestes hudsonicus*. 5 inches.

Crown and back brownish.

The habits of this little northerner are like those of the bird that we know so well; if anything they are even more tame than our bird, especially in the vicinity of lumbermen's camps. They are only met with along our northern border or casually farther south; I have seen one individual in company with other Chickadees in Massachusetts.

Song.—Not distinguishable from that of our Chickadee, but uttered more incessantly.

Nest.—In cavities of stumps, trees, posts or telephone poles, the cavity being lined with grass, feathers and fur; the six or seven eggs are white sprinkled with brown (.60 x .46).

Range.—Resident in Canada and the northern border of the U. S.





VERDIN; YELLOW-HEADED TIT.

746. *Auriparus flaviceps*. $4\frac{1}{4}$ inches.

Adult male with the head and throat yellow, usually with some concealed orange-brown on the forehead; lesser wing-coverts reddish brown. The female is colored very similarly, but is much duller. These are among the smallest of N. A. birds; they are even smaller than their length would indicate, for their bodies are slender. The birds are usually found in high dry portions of the country where cacti and thorny bushes predominate.

Nest.—Their nests are remarkable structures for so diminutive birds; flask-shaped, the outside being a mass of thorny twigs and stems interwoven; this is lined with feathers and the entrance is a small circular hole near the top. The eggs are bluish white specked around the large end with reddish brown.

Range.—Mexican border of the United States from southern Texas to Arizona and Lower California.

GOLDEN-CROWNED KINGLET.

748. *Regulus satrapa*. 4 inches.

Male with crown orange and yellow, bordered with black; female with yellow crown.

Although very small, these birds are very rugged and endure the severe storm and low temperatures of our northern states apparently with little concern, for they always seem to be happy. They are always busily engaged among the underbrush of side hills and along the banks of brooks, hunting for the scanty fare that awaits them.

Song.—A few weak chips, chirps and trills.

Nest.—A large ball of soft green mosses and feathers, suspended from the small twigs in the tops of coniferous trees; it is neatly hollowed out for the reception of the six to nine eggs that are laid; eggs creamy white, minutely but profusely specked with brown (.56 x .44).

Range.—N. A., breeding from northern U. S. northward and farther south in mountain ranges; winters throughout the U. S.





RUBY-CROWNED KINGLET.

749. *Regulus calendula*. 4¼ inches.

Male with a concealed patch of red on the crown; female with no red.

Like the last, these are chiefly winter visitants in the United States and they do not remain with us in the coldest weather, but pass on to the southern half of our country. They are nearly always met with in pine or other coniferous trees, being very abundant in spring in open pine woods and parks.

Song.—A clear warble, surprisingly loud and varied for so small a bird; call, a grating chatter.

Nest.—A ball of moss, grass and feathers, deeply cupped, like that of the last; partially suspended among the small twigs in the tops of coniferous trees; eggs white, more sparingly marked than those of the last (.55 x .43).

Range.—N. A., breeding northward from the northern boundary of the U. S. and farther south in mountains; winters in the southern half of the U. S.

BLUE-GRAY GNATCATCHER.

751. *Polioptila caerulea*. 4½ inches.

Forehead black; tail black with white edges and tips to the outer ones.

Their food is chiefly insects, which they are very expert in catching, taking them on the wing with great celerity. Their movements are all very rapid, flitting from one part of a tree to another, but usually among the upper branches. Their nests are among the most beautiful of bird architecture, even surpassing that of the Hummingbird.

Song.—Sweet, but very faint.

Nest.—Situated on horizontal limbs of trees at medium heights; made of plant fibres, woolly substances and cobwebs, adorned with handsome lichens; the walls are very high and thick, the bird sitting so low inside that only her tail is visible; the four or five eggs are bluish white specked with reddish brown (.56 x .44).

Range.—Eastern U. S., breeding north to New Jersey and Illinois.





WOOD THRUSH.

755. *Hylocichla mustelina*. 8 inches.

Reddish brown above, brightest on the head; below white heavily spotted with black.

These large Thrushes are locally abundant in swamps and moist woodland. They are one of our best songsters, their tones being very rich and flute-like, and, like most of the Thrushes, their songs are most often heard along toward night.

Song.—Very clear and flute-like, containing many notes of the scale; often two or more birds answer back and forth from different parts of the woods; calls, a sharp “quit, quit” and a liquid “quirt.”

Nest.—Either in forks or on horizontal boughs of bushes or trees, usually not more than ten feet from the ground; made of grass, weeds, leaves and some mud; the three or four eggs are bluish green (1.02 x .75).

Range.—Eastern U. S., breeding from Virginia and Missouri north to Maine, Ontario and Minnesota; winters south of the U. S.

WILSON THRUSH OR VEERY.

756. *Hylocichla fuscescens*. 7½ inches.

Entire upper parts a uniform reddish brown; below soiled white with a few faint marks on the breast.

This species is more abundant than the last. It is found in swamps and also in dry open woods, they being especially numerous where ferns grow luxuriantly.

Song.—Very peculiar and not nearly as melodious as that of the Wood Thrush, but still attractive; a slightly descending “too-whe-u-whe-u-whe-u”; call, a clear “whee-you.”

Nest.—On the ground among the leaves, on hummocks, or in tangled masses of briars; made of strips of bark and leaves; eggs greenish blue, darker and smaller than those of the Wood Thrush (.88 x .65).

Range.—Eastern N. A., breeding in the northern half of the United States and southern Canada; winters in Central America. 756a. Willow Thrush (*salicicola*) is more olive above; it is found in the Rockies and eastward to the Mississippi River.





GRAY-CHEEKED THRUSH.

757. *Hylocichla aliciae*. 7½ inches.

Quite similar to the following but with the eye ring white and the sides of head and breast much paler.

Breeds in northern Canada and migrates through the eastern states to Central America. 757a. Bicknell Thrush (*bicknelli*) is similar to the Gray-cheeked but smaller. It breeds in Nova Scotia.

OLIVE-BACKED THRUSH.

758a. *Hylocichla ustulata swainsonii*. 7¼ inches.

Upper parts wholly olive gray, with no brownish tinge; eye ring, sides of head and breast distinctly buff; breast spotted with blackish.

Song.—Quite similar to that of the Veery.

Nest.—Composed of leaves, grass and strips of bark, located in bushes or small trees near the ground; the four eggs are greenish blue spotted with reddish brown (.90 x .65).

Range.—Eastern N. A., breeding from northern U. S. to New Brunswick and Manitoba.

HERMIT THRUSH.

759b. *Hylocichla guttata pallasii*. 6¾ inches.

Tail reddish brown, much brighter than the back and head; breast quite heavily spotted with black.

During its migrations it rarely sings but in its summer home it is regarded as a remarkable musician. Its song has the sweetness and purity of tone of that of the Wood Thrush, and is, perhaps, more varied, but it is not nearly as powerful, and has a ventriloquial effect. I watched one that was perched on a dead stump, about twenty feet from me, for several minutes with a pair of glasses before I could make sure that he was the author of the song I heard, for it sounded as though coming from across the next field.

Nest.—Similar to that of the Wilson Thrush and like that, placed on the ground or very near it; the eggs are plain greenish blue (.85 x .65).

Range.—Breeds from northern U. S. northwards, and farther south in mountains; winters in the Gulf States.





AMERICAN ROBIN.

761. *Planesticus migratorius*. 10 inches.

Male with a black head and bright reddish-brown breast; female with a gray head and much paler breast; young intermediate between the two and with a reddish-brown breast spotted with black.

These well-known birds are very abundant in the northern half of the United States, being found most commonly about farms and dwellings in the country, and also in cities if they are not persecuted too severely by English Sparrows.

Song.—A loud cheery carol. “cheerily-cheerup, cheerily-cheerup,” often long continued.

Nest.—A coarse but substantial structure of mud and grass, placed on horizontal boughs or in forks at any height, or in any odd place about dwellings; the four or five eggs are bluish green (1.15 x .80).

Range.—Eastern N. A., breeding from the middle of the U. S. northward; winters throughout the U. S. 761b. Southern Robin (*achrusteria*) is a paler form found in the Carolinas and Georgia.

GREENLAND WHEATEAR.

765a. *Saxicola arnanthe leucorrhoa*. 6 inches.

The Wheatear is a European bird, but this sub-species is found in Greenland and occasionally in Labrador.

Their habits are about the same as those of the Bluebird. They feed upon insects, larvæ, fruits, berries and some seeds. They are essentially ground birds and are usually found in rocky country.

Nest.—Their nests are made of grasses, hair or any rubbish obtainable, and are hidden in the innermost recesses of crevices among rocks, in deserted Bank Swallow nests or even in rabbit burrows.

The four to six eggs are pale greenish blue, a little brighter in shade than those of the Bluebird. They measure .94 x .60.





BLUEBIRD.

766. *Sialia sialis*. 7 inches.

These beautiful, gentle and well-known birds spend the winter in the southern parts of the United States and north to the snow line; some more hardy than the rest are found throughout the winter in southern New England.

Call.—A short sweet warble; song, a continued warbling.

Nest.—In holes in trees, particularly in orchards, in bird boxes or crannies about the buildings. The bottom of the cavity is lined with grasses for the reception of the four or five pale bluish eggs, which measure .84 x .62.

Range.—Eastern United States, breeding from the Gulf to New Brunswick and Manitoba; winters chiefly in the southern parts of the United States. 766a. Azure Bluebird (*azurea*) is found in the mountains of eastern Mexico and north casually to southern Arizona. It is paler both above and below than our eastern bird.

FIELD KEY FOR IDENTIFICATION OF EASTERN LAND BIRDS BY CONSPICUOUS MARKINGS.

We have added this key at the request of many of our readers for a color scheme for identification. It includes all the birds that have markings of sufficient prominence to be readily noticed in the field.

1. BIRDS WITH RED OR ORANGE MARKINGS.

Scarlet body; black wings and tail; $7\frac{1}{2}$ in.—SCARLET TANAGER.

Red; darker above; crested; black face; 9 in.—CARDINAL.

Rosy-red; wings and tail slightly darker; $7\frac{1}{2}$ in.—SUMMER TANAGER.

Rosy-red; white wing bars; crossed bill; 6 in.—WHITE-WINGED CROSSBILL.

Rosy-red; Gray back, wings and tail; stout bill; $8\frac{1}{2}$ in.—PINE GROSBEAK.

Brick-red; wings and tail darker; crossed bill; 6 in.—CROSSBILL.

Purplish-red, streaked with darker; dark wings and tail.—PURPLE FINCH.

Red below; blue head; yellow back; $5\frac{1}{2}$ in.—PAINTED BUNTING.

Red patch on crown (concealed); greenish back; $4\frac{1}{4}$ in.—KINGLET.

Red cap; black chin; rosy breast; streaked; $5\frac{1}{4}$ in.—REDPOLL.

Pink breast and under wings; black head and back; 8 in.—ROSE-BREASTED
GROSBEAK.

Ruby throat; metallic green back; tiny birds—HUMMINGBIRD.

Orange-red under wings and patch on crown; long forked tail.—SCISSOR-TAILED FLYCATCHER.

Orange; black head, wings and tail (marked with yellow)—BALTIMORE ORIOLE.

Orange breast, crown patch and above eye; black and white back, wings and tail—BLACKBURNIAN WARBLER.

Orange crown patch, edged with black; green back; 4 in.—KINGLET.

Orange on sides, wings and tail; black above; $5\frac{1}{2}$ in.—REDSTART.

Orange-brown crown edged with black; green back; spotted breast—OVEN-BIRD.

2. BIRDS PROMINENTLY MARKED WITH BLUE.

Blue, shading to purplish on head; $5\frac{1}{2}$ in.—INDIGO BUNTING.

Blue; chestnut shoulders; black face; 7 in.—BLUE GROSBEAK.

Blue above; brownish breast; 7 in.—BLUEBIRD.

Blue above; black collar, bars on wings and tail (also white)—BLUE JAY.

Pale Blue above and streaks below; white on wings and tail—CERULEAN WARBLER.

Dark blue above; black throat and sides; white on wing—BLACK-THROATED BLUE WARBLER.

Light blue head and back; brown breast; $5\frac{1}{2}$ in.—LAZULI BUNTING.

3. BIRDS WITH YELLOW AS PROMINENT COLOR.

Yellow below; green back; black mask—MARYLAND YELLOWTHROAT.

Yellow below; gray head and breast; 5½ in.—MOURNING WARBLER.

Yellow below; gray head and breast; white eye ring—CONNECTICUT WARBLER.

Yellow below; black crown and ears; yellow over eye—KENTUCKY WARBLER.

Yellow below; green back; brown spots on back; black stripes on side—PRAIRIE WARBLER.

Yellow below; green back; brown crown and streaks on side; white on tail—PALM WARBLER.

Yellow below; green back; yellow crown; brown stripes on sides—YELLOW WARBLER.

Yellow below; green back; brown ear patch and streaks on sides—CAPE MAY WARBLER.

Yellow below; green back; brown patch on crown; head gray above—NASHVILLE WARBLER.

Yellow below; green back; orange-yellow head; white on tail—PROTHONOTARY WARBLER.

Yellow below and on forehead; green back; black cap—WILSON WARBLER.

Yellow forehead, ears and below: green back; cap and throat black—HOODED WARBLER.

Yellow breast; gray back; black spotted necklace—CANADIAN WARBLER.

Yellow breast; green back; gray head; white over eye—YELLOW-BREASTED CHAT.

Yellow breast; gray back; black through eye and down sides—YELLOW-THROATED WARBLER.

Yellow breast; yellowish patch on back; brown on throat—PARULA WARBLER.

Yellow breast; green above; black throat and down sides—BLACK-THROATED GREEN WARBLER.

Yellow breast with black crescent; streaked above; 11 in.—MEADOWLARK.

Yellow above and below; black cap, wings and tail—GOLDFINCH.

Yellow head; black body; white patch on wing—YELLOW-HEADED BLACK-BIRD.

Yellow head; gray body; brown on shoulders; 4½ in.—VERDIN.

Yellow crown; chestnut on sides; streaked above—CHESTNUT-SIDED WARBLER.

Yellow below and on rump; black back and spots on breast—MAGNOLA WARBLER.

Yellow patch on crown, rump and side; streaked with gray above—MYRTLE WARBLER.

4. BIRDS WITH BROWN MARKINGS MOST PROMINENT.

Small brown birds (4 to 6 in.) with barred wings and tail—WRENS.

Uniform brown above, gray below; long broad tails—CUCKOOS.

Bright reddish brown above; spotted breast; 11½ in.—BROWN THRASHER.

Brown body; black head, wings and tail—7½ in.—ORCHARD ORIOLE.

Reddish brown breast; slate back; dark head; 10 in.—ROBIN.

Dull brown back; grayish, more or less spotted breasts—THRUSHES.

Brown belly; black crown and stripe through eye; gray back—NUTHATCH.

Streaked brown and white; curved bill; climbs up trees—BROWN CREEPER.

Brownish gray; crested; yellow tip to tail; black through eye—WAXWING.

Brown crown, throat and streaks on sides; black mask—BAY-BREASTED
WARBLER.

Brown sides; black head, throat and back; white on wings and tail—TOWHEE.

Brown rump and tail; gray back; streaked above and below—FOX SPARROW.

Brown shoulder, yellow breast patch; black on throat—DICKCISSEL.

Brown shoulder; streaked above; white outer tail feather—VESPER SPAR-
ROW.

Brown shoulder; black cap and patch on breast—McCOWN LONGSPUR.

Brown nape; black breast and cap; light throat—CHESTNUT-COLLARED
LONGSPUR.

5. SHARPLY DEFINED BLACK AND WHITE MARKINGS.

Black crown and throat; gray back; 5 in.—CHICKADEE.

Black and white streaked bird; black crown; 5 in.—BLACK POLL WARBLER.

Black and white streaked bird; striped crown—BLACK AND WHITE WARBLER.

Slate head, breast and back; white below and outer tail feathers—JUNCO.

White throat; gray breast; crown striped black and white—WHITE-THROATED SPARROW.

Large white crown patch edged with black; light below—White-CROWNED SPARROW.

Black body; yellowish nape; white rump and on wings—BOBOLINK.

Black crown; gray back; climbs down trees—WHITE-BREASTED NUTHATCH.

Dull gray birds with no markings may be FLYCATCHERS.

Dull brownish, streaked birds are probably species of SPARROWS.

Plain greenish backs and dull white underparts denote VIREOS.

Glossy blackbirds are GRACKLES or CROWS; if with red shoulders, RED-WINGED BLACKBIRD; with dull brown head, COWBIRD.

CLASSIFIED TABLE OF EASTERN LAND BIRDS.

Showing Divisions into Orders, Families and Genera, as Adopted by the American Ornithologists' Union.

ORDER PSITTACI. Parrots, Macaws, etc.

Family PSITTACIDÆ. Genus

CONUROPSIS.

Carolina Paroquet.

ORDER COCCYGES. Cuckoos, Kingfishers, etc.

Family CUCULIDÆ. Genus

CROTOPHAGA.

Anis.

GEOCOCCYX.

Road-runner.

COCCYZUS.

Cuckoos.

Family ALCEDINIDÆ. Genus

CERYLE.

Kingfishers.

ORDER PICI. Woodpeckers.

Family PICIDÆ. Genus

CAMPEPHILUS.

Ivory-billed Woodpecker.

DRYOBATES.

Hairy to Texan Woodpecker.

PICOIDES.

Three-toed Woodpeckers.

SPHYRAPICUS.

Sapsuckers.

PHLÆOTOMUS.

Pileated Woodpeckers.

MELANERPES.

Red-headed Woodpeckers.

Family PICIDÆ. Genus	
CENTURUS.	Red-bellied Woodpeckers.
COLAPTES.	Flickers.
ORDER MACROCHIRES. Goatsuckers, Swifts, Hummingbirds, etc.	
Family CAPRIMULGIDÆ. Genus	
ANTROSTOMUS.	Whip-poor-will.
PHALÆNOPTILUS.	Poorwill.
NYCTIDROMUS.	Paraque.
CHORDEILES.	Nighthawks.
Family MICROPODIDÆ. Genus	
CHÆTURA.	Chimney Swift.
ÆRONAUTES.	White-throated Swift.
Family TROCHILIDÆ. Genus	
TROCHILUS.	Ruby-thr. Hummer.
ORDER PASSERES. Perching Birds.	
Family TYRANNIDÆ. Genus	
MUSCIVORA.	Scissor-tail Flycatcher.
TYRANNUS.	Kingbirds.
PITANGUS.	Derby Flycatchers.
MYIARCHUS.	Crested Flycatchers.
SAYORNIS.	Phoebes.

Family TYRANNIDÆ. Genus.

NUTTALLORNIS.
MYIOCHANES.
EMPIDONAX.
PYROCEPHALUS.

Olive-sided Flycatchers.
Pewees.
Least Flycatchers.
Vermilion Flycatchers.

Family ALAUDIDÆ. Genus

OTOCORIS.

Horned Larks.

Family CORVIDÆ. Genus

PICA.
CYANOCITTA.
APHLECOMA.
XANTHOURA.
PERISOREUS.
CORVUS.
NUCIFRAGA.

Magpie.
Blue Jays.
Non-crested Jays.
Green Jay.
Canada Jay.
Crows and Ravens.
Clarke Nutcracker.

Family STURNIDÆ. Genus

STURNUS.

Starling.

Family ICTERIDÆ. Genus

COLICHONYX.
MOLOTHRUS.
XANTHOCEPHALUS.

Bobolink.
Cowbirds.
Yellow-head Blackbird.

Family ICTERIDÆ. Genus

AGELAIUS.
STURNELLA.
ICTERUS.
SCOLECOPHAGUS.
QUISCALUS.

Red-winged Blackbirds.
Meadowlarks.
Orioles.
Rusty Blackbirds.
Grackles.

Family FRINGILLIDÆ. Genus

HESPERIPHONA.
PINICOLA.
CARPODACUS.
LOXIA.
LEUCOSTICTE.
ACANTHIS.
ASTRAGALINUS.
SPINUS.
PLECTROPHENAX.
CALCARIUS.
RHYNCOPHANES.
POECETES.
PASSER.
PASSERCULUS.

Evening Grosbeak.
Pine Grosbeaks.
Purple Finches.
Crossbills.
Leucostictes.
Redpolls.
Goldfinches.
Pine Siskin.
Snowflakes.
Longspurs.
McCown Longspurs.
Vesper Sparrow.
English Sparrow.
Ipswich Sparrow.

Family FRINGILLIDÆ. Genus

COTURNICULUS.

AMMODRAMUS.

CHONDESTES.

ZONOTRICHIA.

SPIZELLA.

JUNCO.

AMPHISPIZA.

PEUCÆA.

MELOSPIZA.

PASSERELLA.

PIPILO.

OREOSPIZA.

CARDINALIS.

PYRRHULOXIA.

ZAMELODIA.

GUIRACA.

PASSERINA.

SPOROPHILA.

SPIZA.

CALAMOSPIZA.

Grasshopper, Leconte.

Sharp-tail, Seaside.

Lark Sparrow.

Harris and Crowned Spar.

Chippy, Tree, Field.

Juncos.

Black-throated, Bell.

Pine-wood Sparrow.

Song, Swamp Sparrow.

Fox Sparrow.

Towhees.

Green-tailed Towhee.

Cardinal.

Pyrrhuloxia.

Rose-breast Grosbeak.

Blue Grosbeak.

Buntings.

Seed-eater.

Dickcissel.

Lark Bunting.

Family TANAGRIDÆ. Genus

PIRANGA.

Family HIRUNDINIDÆ. Genus

PROGNE.

PETROCHELIDON.

HIRUNDO.

IRIDOPROCNE.

RIPARIA.

STELGIDOPTERYX.

Family BOMBYCILLIDÆ. Genus

BOMBYCILLA.

Family LANIIDÆ. Genus

LANIUS.

Family VIREONIDÆ. Genus

VIREOSYLVA.

LANIVIREO.

VIREO.

Family MNIOTILTIDÆ. Genus

MNIOTILTA.

PROTONOTARIA.

HELINAIA.

Tanagers.

Purple Martin.

Cliff Swallow.

Barn Swallow.

Tree Swallow.

Bank Swallow.

Rough-wing. Swallow.

Waxwings.

Shrikes.

Red-eye., Warbling Vireo.

Yell.-thr., Blue-head.

White-eye Vireo.

Black and White Warbler.

Prothonotary.

Swainson Warbler.

Family MNIOTILTIDÆ. Genus

HELMITHEROS.

HELMINTHOPHILA.

COMPSOTHLYPIS.

DENDROICA.

SEIURUS.

OPORORNIS.

GEOTHLYPIS.

ICTERIA.

WILSONIA.

SETOPHAGA.

Family MOTACILLIDÆ. Genus

ANTHUS.

Family TROGLODYTIDÆ. Genus

OROSCOPTES.

MIMUS.

DUMATELLA.

TOXOSTOMA.

HELEODYTES.

SALPINCTES.

THRYOTHORUS.

Worm-eating Warbler.

Bachman to Tennessee.

Parula Warbler.

Cape May to Palm Warbler.

Oven-bird, Water-Thrush.

Ky., Conn., and Mourning.

Yellow-throats.

Chat.

Hooded to Canadian.

Redstarts.

Pipits.

Sage Thrasher.

Mockingbird.

Catbird.

Thrashers.

Cactus Wren.

Rock Wren.

Carolina Wren.

Family TROGLODYTIDÆ. Genus
THRYOMANES.
TROGLODYTES.
NANNUS.
CISTOTHORUS.
TELMATODYTES.

Family CERTHIDÆ. Genus
CERTHIA.

Family PARIDÆ. Genus
SITTA.
BÆOLOPHUS.
PENTHESTES.
AURIPARUS.

Family SYLLVIIDÆ. Genus
REGULUS.
POLIOPTILA.

Family TURDIDÆ. Genus
HYLOCICHLA.
PLANESTICUS.
SAXICOLA.
SIALIA.

Bewick Wren.
House Wren.
Winter Wren.
Short-bill Marsh Wren.
Long-bill Marsh Wren.

Brown Creeper.

Nuthatches.
Titmice.
Chickadees.
Verdin.

Kinglets.
Gnatcatchers.

Thrushes.
Robins.
Wheatear.
Bluebird.

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